

Claire Seeley
shares with us
a new CBeebies
television
programme, which
encourages young
children to be
scientists

Little hands exploring how things work

Kit & Pup is a lively new series for little scientists on the BBC television channel CBeebies. Launched in summer 2018, each five-minute show is crammed with animated stories and live-action practical investigations, all designed to get your little ones exploring the world around them (Figure 1). (Episodes are available on BBC iPlayer.)

Promoting exploratory play

Young children are emergent scientists; exploratory play and investigation is an essential part of their development. They need a broad range of opportunities to be inquisitive and curious in order to learn about the world in which they live. In the CBeebies television programme *Kit & Pup*, for which I act as educational consultant, the characters have lots of adventures in familiar settings, such as the beach, park or garden. For example, in the *Long & Short* episode we see Kit and Pup trying out a variety of long and short modes of transport, from short tricycles to long 'Goodies'-style bicycles, short motorcars to long trains.

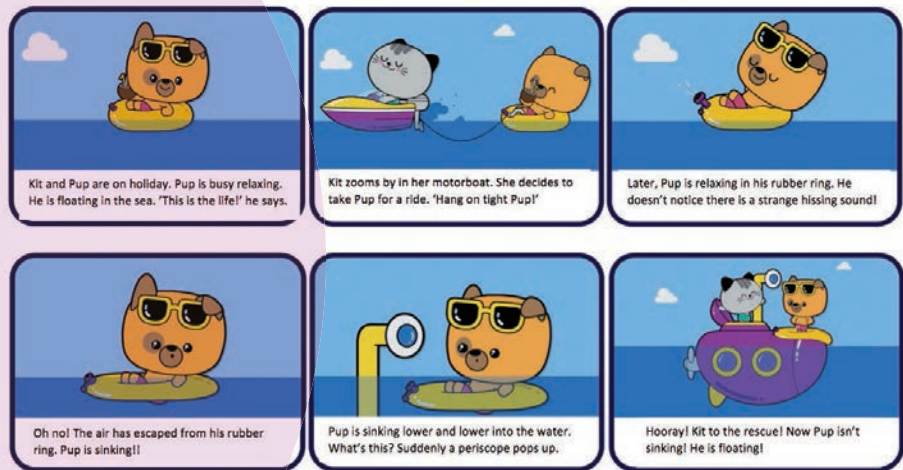


Figure 1 Our dynamic duo *Kit & Pup* exploring the everyday and finding out how the world works



These silly stories provide a valuable hook for talk and play. As Neil Mercer (Littleton and Mercer, 2013) said, 'We don't just interact with language, we interthink with it'. By recreating Kit and Pup's adventures, children can take the vocabulary and begin to make it their own so that it eventually becomes part of their vernacular: 'When children construct understanding for themselves, it is THEIR understanding of the world' (Tunnicliffe, 2015: 5).

We understand that television should never take the place of learning through play and hope that children will be inspired to try ideas out for themselves beyond the programme. In order to support this, early-years practitioners can gather together resources linked to the stories or investigations in each episode, so that they can be responsive to children's questions and ideas: 'By encouraging children's curiosity and exploration of the world around them, we support them in fostering intrinsic motivation for learning as well as an understanding of the core principles of science and technology' (Davies et al., 2014: 90).

Supporting language development

Each episode of *Kit & Pup* focuses on one simple idea, which is then explored in lots of ways so that the viewer is able to gain a full understanding of the concept. The narration slowly builds throughout the episode, moving from

using single words, to phrases and then more complex sentences. We felt that this level of clarity was important to ensure that our viewers are able to fully access the programme, participate in the dialogue and then utilise their newly acquired language for themselves.

These principles of clarity and simplicity make *Kit & Pup* a really useful resource for supporting language development, not just in early-years settings but also with children for whom English is an additional language and children with special needs. It is possible for teachers to use the series intentionally, as a starting point, to help begin to fill the gaps in children's basic vocabulary and as a stimulus for discussion within their settings. Overall, these short episodes offer a great deal of use across ages and abilities as well as language barriers.

Building skills

Across the series of 52 episodes (Figure 2), there are a range of playful enquiries, covering a broad range of basic skills: sorting, grouping, ordering, counting, measuring, matching, comparing, observing, building, testing and reasoning.







These are process skills that the children will need now and in the future to enable them to work scientifically. The aim of science at the foundation stage is for children to begin to develop the fundamental skills of science, to: 'observe real-world phenomena to comment, record, to make predictions

Key words: ■ Early years ■ Investigation

Figure 2
The 52 *Kit & Pup* episodes cover a wide range of topics to support teaching of science in the early years



Figure 3
Some early-years investigations to try

<p>Sand Have a look at wet and dry sand. Which is easier to pour? Which is best to use to make a sandcastle?</p>  <p>Resources: Selection of toys for sand play.</p>	<p>Fruit Do you think all fruits are the same inside? What do you think is inside fruit?</p>  <p>Resources: Different fruits, pre-cut across the middle. Magnifying glass.</p>	<p>Sponge What happens when you put a sponge into water? Which is best for moving water – a cup or a sponge?</p>  <p>Resources: Buckets of water. Sponges. Plastic cups.</p>
<p>Paper Which paper will make the best boat?</p>  <p>Resources: Selection of paper: crepe, cartridge, tissue paper. Water tray.</p>	<p>Metal Do all metal objects stick to the magnet?</p>  <p>Resources: Metal Objects in a sand tray. Magnetic fishing rod.</p>	<p>Stone What happens when I drop a stone in water? Do all stones sink?</p>  <p>Resources: Stones – granite, sandstone, pumice. Water.</p>

and to speculate about cause and effect by raising questions that are capable of being tested' (Serret and Earle, 2018: 97).

Engaging our young audience

Kit & Pup provides a useful tool in the process of building children's scientific skills and, following on from issue 154 of *Primary Science* which focused on 'science capital', we hope that this will start the process of engaging young children with science or developing the ideas of those whose interest has already been sparked.

These investigations are carried out by our team of young presenters, providing

the audience with role models viewers can imitate in their own play. Many of the investigations end with a further question that children might wish to explore for themselves, thus, we hope, stimulating curiosity and providing hooks for learning: little scientists making big discoveries.

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All images courtesy of *Kit & Pup*, CBeebies, BBC TV.