

in Dubai for 11 years, felt that there was a market for parties that combined the educational and fun elements of science.

"I was going to so many parties at play centres," says Fisher, who is the mother of Jack, 6, Liam, 8 and 10-year-old Sean. "Once the kids have done that and are a bit older, mums are looking for something else that's good fun."

Fisher began testing the waters by hosting science parties for her own children, and for friends' children, to gauge people's reactions. The fun science experiments she did at home with her own kids were the starting point.

"After having my own children, I realised that some of the best science can be so simple, using household materials, but you can get the maximum enjoyment out of it. You can make a lava lamp using just oil, water, food colouring and vitamin C tablets, or create colourful mixing liquids with just milk, salt and food colouring. It's stuff I do with my boys, and I felt I could centre a party around it, making it action-packed and fun, but educational at the same time."

In 2016, Fisher took part in the Women of Tomorrow Award, a female entrepreneurial competition run by ExpatWoman.com and Emirates NBD Business Banking. She won the Dh100,000 first prize award and used the money to create Rockit Science. She retired from full-time teaching to develop her business. Making children love and appreciate science was the draw for Fisher.

Her parties, lasting an hour and 15 minutes and catering to kids age 4 to 12, have a number of different themes, all based on classic science experiments. The Crazy Chemical Chaos party is the most popular, representing 80 per cent of bookings. But there's more. Kids can be paleontologists during the Dino Dig party, or crime scene investigators in the CSI-inspired Who Dun It? Or they can get in touch with their inner Harry Potters in the Potions Party. It's a chance for them to watch a fun, magical science "show" and then do the experiments themselves, while role playing as professors, complete with lab coats and safety goggles.

Fisher has also set up an education arm of her business, creating workshops for primary teachers. "Teachers sometimes comment that they aren't as comfortable with science or don't know enough about it to make it fun in the classroom. I wanted to show them how simple it can be and really develop scientific inquiry skills. It's taught like it's all knowledge based but it is so much more than that; it is a skill-based subject as well, based on discovery-based learning, and in today's day and age, children have got to be able to question things, solve problems, experiment, find answers to things themselves," she says.

Part of Fisher's passion towards the subject is also her belief in the importance of exposing and immersing children in Steam learning - an acronym for the science, technology, engineering, art and math fields, and a current hot topic in early childhood education. These subjects are presented through an integrated approach and via everyday activities, to encourage kids to think more broadly about real-world problems by promoting problem solving, and creative and analytical thinking. Usually, kids aren't introduced to these subjects until they're older.

"It used to be just Stem, but that's old news. It's Steam now, because arts are central

PLAY AND LEARN

Three more ways to get children to engage with Steam subjects early on

Seedling kits

These hands-on crafting kits are made in New Zealand by Seedling, and available at Orangewheels in Abu Dhabi and online from NoahsGarden.ae. They encourage children to imagine, create and then play with their creations. The kits come with all the materials and tools needed to create anything from a superhero cape to a night light. The kits even merge tactile materials with advancing technologies, like augmented reality and virtual reality. There are more than 350 kits to choose from, for ages 3 to 12.

Soh Cah Toa UAE

Math can be fun, says Abu Dhabi professor Carla Rudder, and she can prove it. She has created fun and interactive math classes for children ages 3½ to 10, to help build their confidence in mathematics and help them develop their skills through fun activities. She conducts classes all over Abu Dhabi.

Iggy Peck, Architect

This children's book by Andrea Beaty, for ages 4 to 8, introduces Iggy and his passion for building. He has a love for architecture, engineering and design, and uses materials like dirty diapers to build incredible towers. Other works by the author include *Rosie Revere, Engineer*, which shows how well science and art can merge, as well as *Ada Twist, Scientist*.

to everything that we do, and creativity is essential in all these subjects. Children may be building a rocket to launch it using a gas created through a chemical reaction, but they have to be creative in design, using different materials, cutting, sticking, being engineers, developing math skills, figuring out how long the rocket is in the air, learning from science, aerodynamics, using heavy materials versus lighter materials. It is all connected," explains Fisher.

Her passion has led her to create My Discovery Lab, due to launch in September. The idea is monthly themed boxes that parents can order as part of a subscription service, ranging in price between Dh125 and Dh150 each month. There will be three types of boxes, all gender neutral: one for kids age 3 to 5, one for age 6 to 9 and boxes for kids age 10 to 14.

"I wanted to show that science can be so simple, you can do it at home. Parents loved making slime with their kids at our parties, making lava lamps, and making rockets. We'll have a glossy booklet in each box linked to the theme, with interesting characters sharing cool info and facts, did you know, QR codes with links to videos, instructions and diagrams."

The kits will include everything needed for five experiments. The thing is, says Fisher, children don't need to be able to recite Isaac Newton's three laws of motion to understand them. They can see them applied instead, and through this method of exploration, "we are laying the seeds for a foundation in science", she says. "I love what I do. There is nothing better than seeing the amazement in kids' eyes when they do cool science," she concludes.



The secret of speaking to your dog? Don't bark

► **Panna Munyal** asks the experts on canine communication - and finds out a high-pitched voice will put your pooch at ease

The next time you get bemused looks for speaking to your dog as though it were your baby, feel free to cite the aptly named *Who's A Good Boy?!* research paper. Published by the University of York, the report claims that "dog-speak" is an important and useful way for owners to bond with their pets. The study involved a series of speech interaction experiments between adult dogs and humans, and found that the animals bonded better with those who used a high-pitched voice (akin to baby talk), with exaggerated emotion and actions, and peppered their speech with dog-related content, such as "you're a good dog" and "shall we go for a walk".

"A high-pitched tone of voice is a more inviting sound than a low, firm, commanding or authoritative pitch," says Sweden's Anders Hallgren, who is regarded as one of the first dog psychologists in the world, and is the author of *The Key to Happiness - Emotional Bonding and Preventing Social Stress in Dogs* (2017) and *The ABC's of Dog Language* (1997). "The first, or dog-speak, is a distance-decreasing sound, while the latter harsher tone is distance-increasing and may create submissive signals from the dog," Hallgren adds. "I believe that the tone of voice is a major factor, while key words are also of importance."

These key words can belong to the typical ball, good, fetch and walk genre, or can be terms that you introduce to your dog early on. You can add to their positive vocabulary - alongside some tasty treats - when you're training them to sit, stay, fetch or heel. These expressions also come in handy if you need to take your dog to a grooming salon, day care centre or to the vet's.

"When we speak

to our canine patients, we need to reassure them and make them feel comfortable," says Dr Katrin Jahn from the German Veterinary Clinic in Abu Dhabi. "We usually use a softer, high-pitched tone, and include a lot of praise, such as 'what a good or brave boy / girl' or 'you're the best patient in the world' and so on. I think it makes us seem less threatening, even if we do need to give a little injection."

"Many pets are nervous, anxious or just unsure when they come to us, so speaking in a friendly voice and using words that they may know and have positive associations with, helps calm them down in an unfamiliar environment." The same goes for an adopted dog you may be introducing to your space or your family for the first time. "If you have not met the dog before, don't stare directly into its eyes, as it may see this as a challenge or confrontation. I would always approach slowly, but confidently, and with a friendly tone of voice and stance. If it is safe to do so, come down to the dog's level, so you are not a threat," says Jahn.

Another useful tactic is to treat interactions with your dog as a game. Dr Jonathan Hale, the clinical director and head veterinarian at the British Veterinary Clinic in Abu Dhabi, explains the psychological and social science aspect behind this theory, saying that the

speech pattern that humans adopt to elicit the desired response in a dog is "a very intelligent thing to do. Try and modify the interaction in a game-like or enjoyable way. Done properly, such behaviour creates a sustainable game through the pattern of time. A dog won't willingly participate if the activity is not fun. This is a Piagetian concept of human behavioural development being played out between pet and owner. It's the kind of behaviour that makes us the people we are as adults. When we no longer get to play it out in a 'village' as children, we do so with our pets; it's in our very nature to do so."

Hale suggests that keeping the interaction and communication fun and pleasant can make sure that both pet and owner want to come back for more. "Don't be a bully or dominate the relationship, but equally don't be weak or a victim, and let the dog become the tyrant," he adds.

In his many years of study, Hallgren says he has found at least 15 communicative signals and behaviours that can strengthen emotional and social bonds between individuals living around a group of animals, even wild predators such as wolves. In dogs, he's identified high-pitched sounds, playing, body contact, feeding and nursing as positive reinforcers of the pet-owner relationship - so keep that baby talk coming.

Dr Jonathan Hale, left; Dr Katrin Jahn, above Jonathan Hale; Digital Farm



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NICHOLA FISHER
Founder,
Rockit Science