

## A World of Wonder

"If children have interest, then education happens." Arthur C. Clarke

All children are hungry to know "why". As soon as they can speak, they question everything, trying to understand the world around them. But most of the important questions – Where do I come from? What is the Earth like? What is space? What am I made of? How do we know what we know? – are left unanswered until they are considered "old enough" to understand. Few teachers have the scientific knowledge to explain and answer these profound questions about the world, so many children must rely on material and media beyond the classroom to glean a real understanding of the world. This is particularly true in Asia where science is not taught in primary schools.

Tigtag Learn unlocks the secrets of the world for 4–11 year olds. Using unique and stunning films, images and interactive animations, it takes children on a rollercoaster ride around their bodies, their planet and their Universe. They will understand that it is science that gives us the knowledge to understand our world. Tigtag Learn is a rich cycle of learning that inspires more questions that lead to even more learning. With 480 units, each around 15 minutes in length, Tigtag Learn is a complete and comprehensive learning framework that fuels curiosity. It provides every child with an accurate and engaging introduction to science by answering the questions that matter.

Launched in 2013, Tigtag has already transformed the teaching of primary science in 15 countries and in eight languages. The product was conceived as a curriculum resource for use in the classroom by teachers as a part of a formal lesson structure. Primary teachers on the whole are not science specialists. They often lack the knowledge and the confidence to teach large parts of the science curriculum. Tigtag's outstanding films and comprehensive support materials have enabled them to deliver inspirational lessons.

"I thought I knew the difference between reflection and refraction but I wasn't sure. Tigtag has given me the confidence to teach science how I always wanted to and has transformed my lessons."

# Elaine Vickers, Garrowhill Primary School, UK.

"Tigtag has opened up the world to these children. Once they feel like they understandit, they get excited about it and they want more."

# Harvey Bagshaw, Stallings Elementary, US

Tigtag Learn will launch in 2015, aimed at the home market. It distills the insight we have gained into child engagement in the classroom and applies it to the home learning environment. It will be marketed directly to consumers and as an integrated resource to teachers allowing them to "flip" the classroom so that learning and tuition can continue at home.



Tigtag Learn is designed to bring understanding of how the world works within the reach of every child. Children can learn in their own way, at their own pace. Every child will be stretched and encouraged to reach their full potential.

### Qualities

Tigtag Learn will foster the following qualities and skills in every child:

- Curiosity
- Creativity
- Scientific enquiry
- Problem solving
- Global awareness
- Social responsibility
- Communication
- Digital literacy

#### Content

There are five Levels of scientific knowledge in Tigtag Learn, each one aimed at a different age group. Each Level is comprised of 12 Topics.

Each Topic is comprised of eight 15-minute Learning Journeys.

The Foundation Level caters for younger children. Its style and approach is focused on auditory and visual learning. The upper levels adopt a different style and approach, but retain the basic learning structure. So high-attaining younger children can complete all 5 levels.

### The Foundation Level

This is the entry level for Tigtag Learn, designed for 4-6 year olds. The 12 Topics give a broad introduction to the basic areas of science while delving deeper into subjects that this age group adores such as dinosaurs and spiders. The topics also branch off into unexpected areas such as the Big Bang and invisibility cloaks that will stretch the imagination of even the most inquisitive child. The content is designed to be intuitive for children to use on their own or with parental support. Foundation Level encourages conversation between parents and children so that they can learn together. The films are short and gently paced. On-screen text is limited and targeted. Games and simulations encourage trial and error, help children formulate and organise their ideas, and improve communication and literacy.

Foundation Level also starts to build simple science skills, encouraging children to ask questions and use their own observations and ideas to suggest answers to questions.

### Level 1 and 2



Levels 1 and 2 are targeted at 6 years and above, but can be completed at any age.

Some Foundation Level subjects are revisited in more depth to deepen understanding. Children are also introduced to the laws that govern the Universe such as atomic structure and gravity. They are encouraged to think about why things happen and how we know this to be the case.

The films are information-rich and use more scientific terminology. Keywords and learning statements are reinforced with on-screen text. Visuals use tailor-made graphics to help children grasp abstract concepts.

Interactive activities develop critical thinking skills. Children are offered support to undertake different types of scientific enquiry, including planning an investigation, controlling variables, taking measurements, and presenting data in a variety of ways.

#### Level 3 and 4

Level 3 and 4 Topics explore and extend knowledge beyond the curricula for this age group (evolution, genetics, neuroscience). Big questions are tackled (How did the Universe start? What makes us human?) and the content is more focused on the application of science and future technology (regenerative medicine, space elevators, geo-engineering). Building on the knowledge and understanding gained in the previous levels, Levels 3 and 4 helps children to further their skills in knowledge application and analysis.

The results of interactive animations can be used to make predictions and children are given tools to present their arguments in creative ways. They are encouraged to identify scientific evidence to support or refute ideas.

### Routines

Tigtag Learn has been devised to instill a range of learning routines.

#### Independent Learning

Tigtag Learn empowers children to take charge of their own learning. Research has shown that the student-centered approach increases engagement, participation, retention and ownership of a child's education.

#### Collaboration

Integrated into Tigtag Learn are numerous "jumping off" points devised to promote collaboration and team work, either with a parent or guardian or with friends and peers. These activities include practical science experiments, research projects and fi Immaking using Tigtag Studio.

Content Creation Tigtag Learn inspires and supports children to create their own content.



User-generated images, videos, audio, text and data can be assimilated into the resource.

Competition

For many children competition can be a powerful learning tool. Tigtag'scoring system and leader board motivates children to aim and achieve high. For high-attaining and gifted children there are powerful enrichment events, such as Twig's Chain Reaction.