

## Intertek STEM Toy Mark Verification Scheme



STEM Toy Mark Verification Report



Report no.	HKGGH02487385
Description of EUT:	(1) Puzzle + 4 pcs African animal figurines box set (2) Puzzle + 4 pcs African animal figurines box set (3) Puzzle + 4 pcs Asian animal figurines box set (4) Puzzle + 4 pcs South & North American animal figurines box set (5) Puzzle + 5 pcs Polar animal figurines box set (6) Puzzle + 4 pcs Herbivorous Dinosaur figurines box set (7) Puzzle + 4 pcs Carnivorous Dinosaur figurines box set (8) Puzzle + 1 pc Jaguar figurine in box set (9) Puzzle + 1 pc Lion figurine in box set (10) Puzzle + 1 pc Zebra figurine in box set (11) Puzzle + 1 pc Giraffe figurine in box set (12) Puzzle + 1 pc Hippo figurine in box set (13) Puzzle + 1 pc Tigerine figurine in box set
Type Number:	(1) WPZ0101 (2) WPZ0102 (3) WPZ0103 (4) WPZ0104 (5) WPZ0105 (6) WPZ0106 (7) WPZ0107 (8) WPZ0201 (9) WPZ0202 (10) WPZ0203 (11) WPZ0204 (12) WPZ0205 (13) WPZ0206

\*\*\*\*\*



**Issue Date:** Aug 08, 2019

**Claimed Age Grade:** 3+ (according to package)

**Learning Stage:** Kindergarten to Primary school (Lower Level)  
- Depending on curriculum content

**Issuing Body:** Intertek Testing Services HK Ltd.  
6/F Garment Centre,  
576 Castlepeak Road,  
Kowloon, Hong Kong

\*\*\*\*\*



Note: The printable verified STEM toy mark will be provided separately.

\*\*\*\*\*

For and on behalf of:

Intertek Testing Services HK Ltd.

Cindy I. K. Chan  
Vice President

iSTEM Ed Association

Patrick M. H. Tang (STEM Sir)  
Chairman

## Regulatory Requirement met:

Requirements	Applied Standard
Appropriate age grade	<p>According to CPSC age determination guidelines, children with ages 3 Years, they have sufficient fine-motor skill to work puzzles without knobs. These children are also developing more systematic strategies for approaching puzzles, although they often still rely on trial and error. They also enjoy more detailed figure.</p> <p>In addition, according to ISO/TR 8124-8 age determination guideline, children with ages over 3 years, they have more developed coordination and fine motor skills. Trial and error is part of their play pattern and simple puzzle is appropriate for these children.</p> <p>Therefore, the submitted sample is suitable for children with ages over 3 years.</p>
<b>For market: EU</b>	
<b>Mandatory Legal Requirements:</b>	
2009/48/EC	Toy directive
2016/217/EC	REACH directive
850/2004/EC	POP directive
94/62/EC	Packaging and packaging waste
<b>For market: US</b>	
<b>Mandatory Legal Requirements:</b>	
16 CFR 1500	Hazardous Substances And Articles: Administration And Enforcement Regulations
TPCH	US Model Toxics in Packaging Legislation

\*\*\*\*\*

Requirements	Applied Standard
<b>Applicable Safety Standard and Requirements:</b>	
EN71-1:2014+A1:2018	Safety of Toys – Mechanical and physical properties
EN71-2:2011+A1:2014	Safety of Toys – Flammability
EN71-3:2013+A3:2018	Safety of Toys – Migration of certain elements
REACH	Cadmium Content
REACH	Organostannic compounds
REACH	Phthalates content
POP	Alkanes C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs)
ASTM F963-17	Standard Consumer Safety Specification for Toy Safety
CPSIA	Lead content
CPSIA	Phthalates content
TPCH	Toxics in Packaging

Note: Following document were submitted for verification. No actual test was conducted.

1. T31820290191TY-01 dated Dec 11, 2018.

\*\*\*\*\*

## **STEM Product Verification**

### **Science – to understand how the natural world works**

Comment:

The item consists of animal figure, information card and puzzle. Players can explore the lovely animals through the finished puzzle. Moreover, the set contains QR code which allows players access more animal information through the Apps and games inside. Through observation and interaction with the Apps, it enhances players' knowledge in biological science, living environment, etc.

### **Technology – use of science knowledge for practical purposes**

Comment:

The item involves self-learning with the usage of smart phone and QR code technology. Players can read the basic animal information from the card and can use the Apps for more related information. The game within the Apps allows players understand the animal behavior, living environment, type of food, etc.

### **Engineering – creative application of science and mathematical knowledge**

Comment:

The puzzle allows players plug-and-place under engineering concept.

### **Mathematics – science of number and their operations, space, measurement**

Comment:

Apart from the play figure and puzzle set, the item consists of information card and QR code which allows players access the internet for more information about the animal, living environment, etc.

*The learning outcomes are additional estimation of the generic skills that would be developed by playing such toys.*

## **Learning Outcomes: General Skills Development**

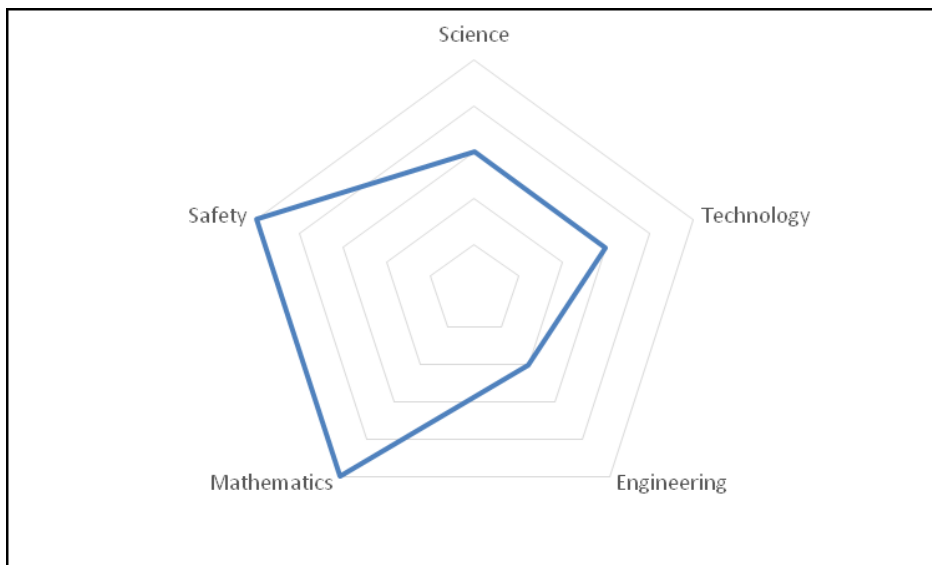
<b>Consolidation on Generic Skill</b>
Communication Skills
Critical Thinking Skills
Mathematical Skills
Problem Solving Skills
Self-learning Skills
Self-management Skills
Hand-eye coordination

\*\*\*\*\*

**Minimum Benchmark:**  
**60% (9 out of 15) on integration of overall STEM verified aspects**

Conclusion:

This product fulfills 9 criteria on STEM knowledge. It serves the purpose of STEM education device.



\*\*\*\*\*

End of Report

Disclaimer:

*The Intertek STEM Mark Scheme is a verification scheme covering the marketing of STEM features of STEM products. Application of the STEM Mark on a product indicates that the samples tested by Intertek met the requirements established for specific STEM functionalities as listed in the Scheme. Manufacturers must ensure that a representative sample is provided to Intertek for testing. Also, if there is any change in design, material, processing, or sourcing of the product that may impact the property for which the STEM Mark was issued, the manufacturer shall inform Intertek and submit a new application for the STEM Mark. Intertek's responsibility and liability are limited to the terms and conditions of the Scheme's agreement. Intertek assumes no liability to any party, other than to the Client, in accordance with the agreement, for any loss, expense or damage occasioned by the use of this information. Intertek is not responsible for the production quality control and does not relieve the Client of their obligations in this respect. The information provided in our STEM Mark Certificate and Testing Reports is proprietary to Intertek, and Intertek reserves the right to make any changes to the information at any time without notice or to withdraw the Mark and related information given for products in the event the Mark becomes invalid.*