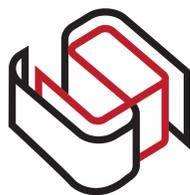




# Teachers' Guide



STAGE 9  
EXHIBITS

# Teachers' Guide

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## Introduction to the Exhibition

“*Toytopia*” is an immersive and interactive exhibition focusing on the various histories and legacies of toy makers throughout the past century. Students will gain knowledge on various aspects within the world of toys and their histories.

The *Teachers’ Guide* has been developed as a resource for teachers to use before and after the museum visit and to enhance the visit itself.

This guide has several sections. The Exhibition Orientation contains information regarding the contents of the exhibition. The Content Standards outline how the exhibition correlates to the California Common Core Standards and Next Generation Science Standards. The Classroom Activities can be used to prepare for a visit or to continue themes of the exhibition after the visit. Activities During Your Visit will provide added value to your trip by engaging students at a deeper level.

## What to Expect

While you and your students visit the exhibition, you will:

- interact with a variety of toys and play items
- discover the history of various toys and toy makers
- explore different platforms of interactive elements.

When you and your students leave the exhibition, you will understand how:

- history has affected the development of toys
- unstructured and structured play can influence human development
- media has played an important role in the history of toys and toy making.

## General Safety & Guidelines

- Young children should be supervised at all times.
- Some areas have higher than normal sound levels.

## Exhibition Orientation

As you move through the exhibition’s physical space, you will find displays and interactive stations grouped accordingly. The following overview will help you plan your time in the exhibition.

### **Toys & Games Throughout the Decades**

Take a stroll down memory lane to see some of the world’s most classic toys and games dating from the early 1900s to the year 2000 and beyond. Nostalgic toys such as *Atari*, *Erector Set*, and classic board games are featured. These displays use interactive games, trivia and video.

### **Hasbro**

This area features oversized renditions of classic items and characters. A giant *Candy Land* game board and a 10 foot *Monopoly* car, and a large scale *Battleship* game are “must see” items within the exhibition.

### **Video Game Music and Sounds**

Journey back and test your memory with an interactive trivia and matching game featuring memorable music and sound effects from famous video games of the 80s and 90s.

### **Retro Arcade**

The arcade area showcases some of the most popular and memorable arcade games from the 80s and 90s. Classics such as *Ms. Pac-man*, *Space Invaders* and *Donkey Kong* are part of the exhibition’s arcade collection.

### **“Extreme” Dot-to-dot Activities**

Students have the opportunity to complete a large scale dot-to-dot picture. Two pictures are available, each consisting of over 1,000 dots.

### **New Thomas the Tank Engine Playfield**

A brand new configureable playfield with large airport, city and country roads, with lakes and unique traffic figures make this a great interactive area for wooden train lovers.

### **Lego Wall**

An 8-foot by 8-foot wall of Lego base plates and thousands of *Lego* blocks allow for a variety of new creations. Students can transform something ordinary into a work of fine art. The opposite side houses an impressive collection of *Lego* “mini-figures”.

### **Building Areas**

Several contributors have provided assets for building areas for visitors to engage with products and toys. These include *Mr. Potato Head* and *Lincoln Logs*.

### **Games About Movies/Movies About Games**

An interactive display featuring classic toys featured in movies throughout the years accompanied by a trivia game with lights and sound. Take a close look at how these two media platforms interact.

### **Zoltar and Life-size Piano**

The famous Zoltar from the movie “*Big*” makes an appearance where visitors can have their fortunes read. Children can walk along the giant keyboard that was also featured in the movie.

### **Toy Stories/What’s It Worth?**

There is a story behind the creation of every toy, and this interactive display case tells the interesting and surprising tales behind popular vintage toys such as *G.I. Joe*, *Star Wars action figures*, and *Barbie*.

### **Crayola**

*Crayola Crayons* features an ornately hand-painted display case featuring large-scale crayons, perfect for a photo opportunity with other Crayola products such as *Silly Putty*.

### **World’s Largest Etch-A-Sketch**

Ohio Art’s large scale *Etch-A-Sketch* stands over 8 feet tall! This serves as a unique photo opportunity for guests.

## Content Standards

The content written for *Toytopia* supports student understanding of key ideas developed within the California Common Core State Standards and Next Generation Science Standards.

The goals of these activities include:

- having students recognize themselves as researchers.
- developing critical thinking skills to problem solve.
- learning new concepts through discovery.

## Common Core Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects

*Kindergarten - 5<sup>th</sup> Grade*

### Reading Standards for Literature

#### Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusion drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

#### Interpretation of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

### Writing

#### Text Types and Purposes

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

#### Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

## **Speaking and Listening**

### Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
3. Evaluate a speakers' point of view, reason, and use of evidence and rhetoric.

### Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

## **Common Core Standards for English Language Arts**

*6<sup>th</sup> - 12<sup>th</sup> Grade*

### **College and Career Readiness**

#### Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

#### Presentation of Knowledge and Ideas

5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

## **Next Generation Science Standards**

### K-PS2-1 Motion and Stability: Forces and Interactions

Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.

### 2-PS1-1 Matter and Its Interactions

Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. Observations can include color, texture, hardness, and flexibility.

### 2-PS1-3 Matter and Its Interactions

Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. Examples of pieces could include block, building bricks or other assorted small objects.

K-2-ETS1-2 Engineering Design

Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

K-2-ETS1-3 Engineering Design

Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

## Favorite Toy

### Objectives:

- Students will describe the characteristics of modern toys.
- Students will describe their favorite toy and how their favorite can change as they grow older.
- Students will develop their own questions to conduct research.

### Materials:

- Students will need to bring in their favorite toy from home
- Magazines or catalogs with various toy pictures
- Examples of toys suitable for various ages, or pictures of them

**Time Required:** 60-90 minutes

### Outline:

Have a “Toy Day” at school where the students bring in their favorite toy from home. The students should name their toy and describe it to the rest of the class. Students should also explain what makes it their favorite toy.

As a class, examine all the toys. Are any of them the same kind of toy? Can they be sorted by the material it is made out of? Has this toy always been their favorite or did they favor another toy at a younger age? Do they have older brothers or sisters who play with different toys? How are they different and why?

Show the students a range of toys suitable for children of different ages, from babies to age 6 and on. Make a timeline with the toys showing which toys are most appropriate for the different ages and discuss why. Without the students seeing, misplace one of the toys in the timeline. Encourage students to determine which toy is in the wrong place and discuss why it would not be suitable for a child of that age.

Distribute toy catalogs to the students and explain to them that they will be creating their own toy catalog. Each page in their catalog will represent a different age. Explain to students how collectors and museum curators use catalogs to list items in the collection. Cataloging is an important way to track items and descriptive information. Do they think any of the toys in their own catalogs could appear in a museum?

How can we find out about toys in the past? List students’ ideas and suggest they ask their parents or grandparents questions in order to draw or list the toys they had when they were younger. Information gathered can be used in a later activity to discuss the history of toys and toy making.

## Descriptive Writing

### Objectives:

- Students will use descriptive words to write about a specific toy.
- Students will verbally share their writing with the class.
- Students will listen to a speaker and gather information to make a conclusion.

### Materials:

- Toy catalogs - provide at least one catalog per student.

**Time Required:** 60 minutes

### Outline:

Allow students 10 - 15 minutes to explore a toy catalog. Instruct them to look, read and discuss all their observations with their classmates. At the end, they must choose just one of the toys.

Have the students write about the toy they chose, but without naming it. They must use adjectives and adverbs to describe it. Students should write 2-3 sentences stating why it is their chosen toy. Next, students should make a connection between their toy and how it might benefit them in school. Students can state which school subject the toy will be most useful in and provide valid reasons to support it.

Each student reads aloud their description and, if necessary, provides the page number from the catalog. The rest of the class will use the information they heard to guess the toy.

## The Science of Toys

### Objectives:

- Students will make a connection between toys/play and developing a skill.
- Students will work together in small groups and collaborate ideas.

### Materials:

- Etch-a-Sketch
- Rubik's Cube
- Silly Putty
- Plastic figurines (dinosaurs, G.I. Joes, etc.)
- A board game
- Bouncy ball

**Time Required:** 45-60 minutes

### Outline:

Choose five different toys/activities that highlight a "type of play". Randomly assign students an activity and have them interact with one another for 15 minutes. Once the playtime is over, have the groups of students think about the activity they just completed and what skills they used in order to complete the task. Have students make a list of these ideas in one column and in another column have them write down what type of profession would use that skill. Have students brainstorm other toys or games that would help them develop any skills needed for the professions they listed.

### Additional Information:

Toys have been an important part of civilization dating back to 4000 BC in Babylonia when the first board game resembling checkers or chess was introduced. Dolls made of string, fabric, and paper were used in Ancient Egypt. In Ancient China kites and yo-yos made of stone and wood were very popular. Through the years toys have evolved from simple materials to elaborate creations. Despite all these changes and the incorporation of technology, the end goal has always been the same – to have fun!

Toys and play serve an important purpose in childhood development and everyday adult lives. Play can be fun and practical. Toys and games help achieve developmental goals in emotional, mental and physical health.

### Physical Play

Physical play keeps you fit as a child and makes you more likely to stay fit as an adult. This type of play allows us to discover our physical limitations. Sports, jumping rope, hiking, etc. are all activities that help us become more independent and confident in our skills.

**Critical Thinking**

Strategy-oriented activities like board games, Lego toys, Lincoln Logs and construction toys help strengthen math and reasoning skills. These activities help us become better thinkers and problem-solvers.

**Communication and Social Skills**

During play children will often encounter verbal and nonverbal communication. This teaches us to listen, observe, and pick up on subtle cues. Charades, role-playing, and word games help us develop these social skills. Group games and team sports encourage children to follow directions, take turns, share, collaborate, and handle disagreements and compromise. This is also essential for learning how to enjoy time spent with friends.

**Emotional Skills**

Playing with dolls, stuffed animals or action figures gives children an outlet to express and regulate their emotions. This can build pride and confidence.

**Creativity and Imagination**

Arts and crafts allow children to explore new possibilities and come up with innovative ideas and solutions. Building forts, creating stories and playing imaginary games allow children to use their minds in a different way.

## Animal Enrichment

### Objectives:

- Students will be able to define enrichment as it is used with the care of animals.
- Students will discover why enrichment is important for all animals.
- Students will develop a research method to investigate a question.
- Students will describe the process for creating an enrichment toy.

### Materials:

- access to the Internet and reference materials
- various household items and recyclables

**Time Required:** Two or three 60 minute periods

### Outline:

Explain to the students that they will be investigating enrichment of animals. What are the benefits of providing enrichment to an animal? How is enrichment used for captive animals in zoos? How might a lack of enrichment affect any animals you care for, such as a pet? Have students brainstorm and record their ideas in small groups. Have students research the word “enrichment” and come up with several ideas and definitions for what the word means. As a class, develop a single definition for “enrichment”.

Encourage students to continue with the investigation by asking what the next steps would be. How would you investigate these questions and test your predictions? What materials would you need? Should you make observations? What kinds of records do you need to keep? How will you know if you’ve succeeded in answering the questions?

Have each small group of students choose one common zoo or aquarium animal to research. Have students research the animal’s natural typical behaviors. How could enrichment be used to mimic these natural behaviors? As a group, have students construct an enrichment toy that could be used for their animal. Have students record their materials and procedure so their enrichment item could be reproduced easily. Students should prepare to present their project and encourage them to ask questions to critique each other’s enrichment toy.

### Additional Information:

Animal enrichment is the process of providing stimulating environments for captive animals in order for them to demonstrate their species-typical behavior. Through enrichment, animals are able to exercise control or choice over their environment and enhance their well-being physically, behaviorally, socially, cognitively and psychologically.

Many zoos will provide enrichment for their animals to stimulate behavior that is typical of the same species in the wild. It is important that these enrichment resources increase physical and mental

exercise for the animals. What items can be used for enrichment? First and foremost, it must be safe for people and the animal. Many trainers will consider these questions - can the animals get caught in it or become trapped by it? Can an animal be cut or otherwise injured by it? Can the animal ingest the object or pieces of it? Is any part of it toxic? Can it be choked on? Can it destroy an exhibit? Can the manner of enrichment promote aggression or harmful competition? The enrichment item must also be available at little to no cost since most items are destroyed by the animals. Many enrichment items that are used are ordinary household items that may be deemed "trash". Cardboard tubes, old toys and stuffed animals and old plastic containers can make for excellent enrichment materials.

## Scavenger Hunt

### Objectives:

- Students will explore the *Toytopia* exhibit and find answers to the scavenger hunt questions.
- Students will read informational panels, analyze and obtain factual information.

### Materials:

- Scavenger Hunt worksheets
- Clipboards
- Pencils

**Time Required:** 15-20 minutes

### Outline:

Have students work in pairs or small groups. Distribute a scavenger hunt worksheet and pencil to each group and allow them enough time to walk through the exhibit reading the informational panels to find the answers to the questions on the worksheet.

### Scavenger Hunt

Explore *Toytopia* and search for the answers to the following questions...

1. Who was the teddy bear named after?
2. What was the first movie made based off a board game?
3. What is the most successful American-produced arcade game?
4. How much in profit did George Parker make on his first game, *Banking*?
5. What is the largest tire manufacturer?
6. What movie character has been based on a toy?
7. What toy was used (unsuccessfully) as a synthetic substitute for rubber during World War II?
8. Who invented the Rubik's Cube?

**Congratulations! You are finished!**

## Scavenger Hunt

Explore *Toytopia* and search for the answers to the following questions...

1. Who was the teddy bear named after?

*Teddy Roosevelt*

2. What was the first movie made based off a board game?

*Clue*

3. What is the most successful American-produced arcade game?

*Ms. Pac-Man*

4. How much in profit did George Parker make on his first game, *Banking*?

*\$100*

5. What is the largest tire manufacturer?

*Lego*

6. What movie character has been based on a toy?

*Mr. Potato Head (Toy Story), answers may vary*

7. What toy was used (unsuccessfully) as a synthetic substitute for rubber during World War II?

*Silly Putty*

8. Who invented the Rubik's Cube?

*Erno Rubik*

**Congratulations! You are finished!**

## History of Toys

### Objectives:

- Students will develop ideas about the change in toy production.
- Students will make observations and draw connections between older toys and modern toys.

### Materials:

- No additional materials required

**Time Required:** 30 minutes

### Outline:

Toys, like society, have evolved throughout human history. Many of the most popular or most nostalgic toys of today have unique stories in their origins, along with their creators or those well-known historical figures that were directly influenced by them.

Prior to visiting the exhibition, have a discussion about the history of toys. Ask students, how have toys changed throughout history? Why have toys changed? If an earlier activity was completed about asking parents and grandparents about their favorite toys, that information can be used to compare historic toys to modern toys.

### Try This:

Many of the toys you see inside *Toytopia* could be called the ancestors to modern day technology. Find a toy inside the exhibition that is similar to the following technologies:

**iPad** - What is a flat tablet-shaped toy that you can use to create works of art on?

**Multiplayer video games** - Where is there a place that we could play video games or other games with our friends, but in a group setting?

**Lego** - We do have these inside *Toytopia*, but what kind of toy could you use to build with before the plastic Lego were invented?

## Structured Versus Unstructured Play

### Objectives:

- Students will discuss the pros and cons of different methods of play.
- Students will make their own observations and share them in a larger group setting.

### Materials:

- No additional materials needed

**Time Required:** 30 minutes

### Outline:

Structured and unstructured play have benefits that aid in developing a well-rounded individual. A balance of both can be essential for fun and learning for human development.

Structured play consists of organized activities often directed or designed by adults. There is also a specific goal or desired outcome. The benefits of structured play include sportsmanship, teamwork, developing strategy and skill, building confidence, setting goals and following directions. An individual can learn to always seek the most efficient way to achieve pre-existing objectives.

Unstructured play is open-ended and has no specific learning objectives. Children may invent their own games, create their own worlds and enjoy playing. Unstructured play helps one think “outside the box” and act on one’s feet. Benefits also include building a fun and creative skill set, testing boundaries, handling emotions and solving problems.

### Try This:

Give students five minutes to find a structured activity within the exhibition and play. Once the time is up, give them another five minutes to find an unstructured activity and play. After both play sessions, pull the group back together and share any observations or feelings after the end of each play period. Were students sad or upset to be done with the play period? Which period was more enjoyable and why? How could our preference between structured or unstructured play influence our future hobbies or careers? Facilitate a discussion that highlights the pros and cons of each type of play.

## Observing Play

### Objectives:

- Students will develop the ability to research for the purpose of building and presenting knowledge.

### Materials:

- No additional materials needed

**Time Required:** will vary

### Outline:

Explain the concept of *Toytopia* and general safety guidelines before entering the exhibition. Allow students 10 minutes to interact with the various exhibits and let them know that everyone will regroup afterwards. While the students are playing, observe how they play. Which exhibits are the most engaging? Which exhibits allow for the most hands-on experience? Creativity? Critical thinking?

Discuss the exhibition and share impressive facts. Discuss what toys are and where they came from. Discuss some of the origins of various toys and present parallels to modern day toys and games. Relate to various parts of history and Native American culture (doll making, board games, etc.)

### Try This:

By making observations, we can gain knowledge to form conclusions. Give students the opportunity to practice making observations. Emphasize the importance of looking and listening. Break up the students into two equal groups. Instruct one group to interact with the exhibits again and the other group will observe. After five minutes, have the groups switch roles. Bring all the students back together and discuss their observations. Share your own observations from the first play session. Emphasize the end goal of learning how to observe, research, understand how people act and give opinions on what their interpretation of play is.

## We All Play Differently!

### Objectives:

- Students will observe various toys and make connections with a specific motor skill.

### Materials:

- No additional materials needed

**Time Required:** will vary

### Outline:

Prior to entering the exhibition, discuss different methods of play with the students. Refer to the “Additional Information” on Page 10, if necessary.

*Toytopia* is all about the different ways humans have played over the course of history. Can you locate the following ways we play inside the exhibition?

**Playing with our hands:**

**Playing with our feet:**

**Building something:**

**Following directions:**