

INTRODUCTION

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Toy Sort Challenge!

 Math •  30 min •  Ages 4-5 • Grade K

This lesson challenges young learners to sort a collection of everyday objects based on various attributes. Children will discover different ways to group items, building foundational skills in classification and logical thinking.

Our goal is for your child to identify observable attributes of objects like color, size, and type, group objects into categories based on a chosen shared attribute, and articulate the rule or characteristic used to sort objects.

What You Need

Small Toys • Socks • Buttons • Bowls



Scan To Tailor

Every child learns differently, and this is just the baseline.

Scan to jump into the app and easily tailor this lesson to match your child's exact learning level and see how Mai will guide this lesson.



Ready for more adventures? Explore our **Sparks Hub** in the app

Lesson Blueprint

A simple, hands-on lesson that guides your child through curiosity, exploration, and reflection.



Mai's Tips

1. **Instead of telling your child how to sort, ask open-ended questions like 'What do you notice about these:' or 'How are these alike/different?' to guide their discovery.**
 2. **Allow your child to make mistakes or try unconventional sorting methods:** The process of discovering a 'better' way through trial and error is valuable learning.
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Prep Before Session

1. Gather the materials and choose a safe, comfortable place for the activity.
2. Read through the lesson once so you know where the child will make predictions, test ideas, and reflect.

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1 Introduction 5 Min

1. Gather all the mixed items (small toys, socks, buttons) and place them in a pile. Encourage your child to look at the mixed items and engage with them. Ask open-ended questions to get them thinking about organizing. Explain that 'sorting' means putting things into groups based on what's similar, which makes things neat and easy to find.
2. Ask: "What do you notice about all these things?"
3. Ask: "What do you think we could do with them?"
4. Ask: "How could we make this pile less messy?"
5. Done when your child engages with the items and expresses initial thoughts on organization.

 **Done when:** Student engages with the mixed items and expresses initial thoughts on organization.



2 Explore & Plan 8 Min

1. Have your child physically explore the items. Ask them to pick up a few things and describe what they see, feel, and notice. Guide them to identify different characteristics, also called 'attributes'. An attribute is a quality or characteristic of something, like its color, size, or how it feels (soft/hard). Identifying attributes helps us describe and compare things. Then, encourage them to suggest ways to group the items.
2. Ask: "Pick up some things. What do you notice about them?"
3. Ask: "Can you find something soft? What about something round?"
4. Ask: "How are these two things different?"
5. Ask: "How could we start making groups with these?"
6. Done when your child identifies at least two different attributes of the objects (e.g., color, size, type) and suggests a way to group them.

 **Done when:** Student identifies at least two different attributes of the objects (e.g., color, size, type) and suggests a way to group them.



3 Discussion 6 Min

1. Build on your child's observations from the previous stage. Guide them to articulate a 'sorting rule' for potential groups. A sorting rule is the characteristic we decide to use to put things into groups. For example, if you put all red things together, the rule is 'color'. This helps us organize consistently. Let them answer first; gently guide if they get stuck.
2. Ask: "If we put all the red things together, what would we call that group?"
3. Ask: "What about putting all the small things together?"
4. Ask: "What is the rule for that group?"
5. Done when your child can explain a simple sorting rule in their own words (e.g., 'put all the red ones together').

 **Done when:** Student can explain a simple sorting rule in their own words (e.g., 'put all the red ones together').



4 Activity 9 Min

1. Provide the empty bowls for sorting and the mixed items (small toys, socks, buttons). Instruct your child to take the lead in sorting the items into distinct groups. Encourage them to choose a sorting rule, like color or type. Observe their sorting method and ask guiding questions to understand their choices, without correcting immediately.
2. Ask: "What rule will you use to sort first?"
3. Ask: "Why did you put that one there?"
4. Ask: "Is there another way we could group these?"
5. Done when your child has completed the physical sorting of items into distinct groups based on at least one attribute.

 **Done when:** Student has completed the physical sorting of items into distinct groups based on at least one attribute.



5 Summary 2 Min

1. Celebrate your child's accomplishment in sorting the items. Ask them to explain their final sorted groups. Connect the concept of sorting to real-world examples, like organizing toys or clothes, and discuss why it's helpful.
2. Ask: "Why is it helpful to sort things in our homes?"
3. Ask: "What was your favorite way to sort today?"
4. Ask: "Can you tell me about your sorted groups?"
5. Done when your child shares one key takeaway or a favorite part about sorting.

 **Done when:** Student shares one key takeaway or a favorite part about sorting.

Beyond The Lesson

Fuel their curiosity beyond the lesson with bonus sparks.



Table Talk

People sort things all the time, like when a librarian puts books back on the shelf or a chef organizes ingredients in the kitchen.



Did You Know?

Everyday objects can reveal surprising science when we slow down and observe them.



Challenge

Try sorting the items again using a completely different rule! Maybe sort by soft/hard, or things that roll/don't roll.

Quick Recap Quiz 4 Min

Check what your young scientist remembers. Each question includes a Parent Tip to help them find the answer without giving it away.

1. Which Pile Is Sorted By Color?

- ☐ A pile with red and blue toys together.
- ☒ A pile with only red toys.



Ask: 'Which pile has all the same colors?'

2. What Is A Good Way To Sort Different Kinds Of Toys?

-  Mix all the cars and blocks into one pile.
-  **Put all the cars together, and all the blocks together.**

 Ask: 'If you want to find your car quickly, how should you put them away?'

3. Why Do We Sort Our Clothes When We Put Them Away?

-  To make a big, messy pile.
-  **To find them easily when we need them.**

 Ask: 'If all your shirts and pants were mixed up, would it be easy to get ready?'

4. If You Sort A Bowl Of Fruit, How Might You Put Them Into Groups?

-  Mix them all up in one big group.
-  **By what kind of fruit they are (apples, bananas, oranges).**

 Ask: 'If you want just an apple, where would you look?'