

Toy Designer: Blocks with Braille

Adventure Description:

In this adventure, students will think like a toy designer and create a set of blocks that has Braille on them!

Activity

Step One: Background Information on Toy Designers, Inclusive Toys, and Braille (5 minutes)

- Ask students what their favorite toy is. Explain to students that all of these toys were created by toy designers! Toy designers have to be fun, imaginative, and creative to make toys that kids will have fun playing with!
- Explain to students that there are special toy designers that focus on creating that are inclusive for every child. Inclusive toys are toys that anyone can play with. Show Handout: Inclusive Toys.
- When toy designers brainstorm ways to create inclusive toys, they have to think about what different kids
 need to have fun. For example, someone who has a hard time hearing would have a difficult time playing
 with a toy that talks or makes noise. As a result, a toy designer would need to make sure that there was a
 small screen that told the person what the toy was saying.
- Explain to students that one way toy designers design inclusive toys is by using Braille. Braille is a language that is used for people who have trouble seeing. Show Handout: Braille.
- Discuss how Braille is made up of raised bumps. The raised bumps mean different letters and symbols.
 Because people who are blind or have trouble seeing cannot see regular letters on a page, they can feel Braille with their hands.

Please contact Allison Bischoff, Director of Teacher Support, at allison@rozzylearningcompany.com or 314-272-2560 with questions.



STEM CAREER Toy Designer: Blocks with Braille

Step Two: Spelling Names in Braille (10 minutes)

- Explain to students that they will be creating a set of blocks with Braille on them. Ask students if they have ever played with alphabet blocks, where each block has a letter of the alphabet. Explain that students that they will create a set of alphabet blocks that have Braille on them.
- Explain that students will use Handout: The Braille Alphabet to write their name in Braille on block toys.
- Before students start making a block, they must first write out their names in Braille so that they can practice using Braille! Provide students with Handout: Spelling My Name in Braille.
- Help students spell their names in Braille on the handout. Each letter of the student's name should be in a box on the handout. If a students name has more than 10 letters, please help them draw boxes to fill in with the Braille letters!

Step Three: Decorating Blocks (5-7 minutes)

- Explain to students that they will now decorate their blocks with art supplies.
- Provide students with the following materials:
 - Handout: Making a 3-Dimensional Block
 - Students need as many copies of this template as there are letters in the student's name
 - Art supplies, like crayons, markers, colored pencils, glitter, etc.
 - Scissors and glue
- Have students spend about 5 minutes decorating their blocks with art supplies.

Step Four: Assembling Blocks (15 minutes)

- Explain to students that they will now cut and glue their 3-D block templates.
- Instruct students to begin cutting their templates. Tell students that they should cut only along the solid lines on the template.
- After students have cut out their template, they need to fold along the dotted lines on their templates.
- Once the template is folded, instruct students to place glue dots on the glue flaps and press the template together.

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Step Five: Writing Braille on Blocks (10 minutes)

- Explain to students that they will now write their name on their blocks in Braille.
- Instruct students to use glue dots to spell their name on the blocks. They should also use Handout: Spelling
 My Name in Braille to write their name in Braille on the blocks.
- Have students place their blocks in a safe spot in the classroom to dry.

Materials List

Provided online:

- Handout: Inclusive Toys
- Handout: Braille
- Handout: The Braille Alphabet
- Handout: Spelling My Name in Braille

Not provided (each student needs):

- Art supplies, like crayons, markers, colored pencils, glitter, etc.
- Scissors
- Glue

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