

LEGO BLOCK CODING

DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

Every child is different, and these are only suggested adaptations and activities. Do what works best for encouraging your child's independent exploration during this suggested play activity. Consult your pediatrician, physical therapist (PT), and/or occupational therapist (OT) first.



STEM Concept(s): Sequencing, Connections

Help your child understand what computational thinking concepts like sequences are. Lego blocks are excellent materials to target STEM activities. Help your child **create, build**, and imitate structures, by using Legos to **create patterns and sequences**.

STEM IDEAS/WORDS

- Shapes
- Pattern/Sequence
- Numbers/Symbols
- Predict
- Colors
- Counting

MATERIALS

- Legos or a similarly connecting block

OPEN-ENDED QUESTIONS

- *What should we do first? Then what? Can we do them together?*
- *What would your name look like (spelled out OR Lego blocks with assigned letters)? What is this Lego block pattern/sequence saying? Can you create a 'secret message' for (insert name)?*



LEGO BLOCK CODING ADAPTATIONS

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ENVIRONMENT

- If possible, limit background noise & distractions
- Use modified or flexible seating
- Place Lego blocks on an anti-slip mat or in a container or tray within reach

MATERIALS

- Have child's assistive technology ready and available, including augmentative & alternative communication (AAC) device
- Use large blocks that are easier to grasp and manipulate
- Use blocks that are bright with contrasting colors and sizes so that children can differentiate
- Use stabilizing mats or Velcro for lining up contrasting materials in patterns
- Provide blocks with different sizes, textures, and colors

INSTRUCTION

- Use a variety of methods of communication (e.g., sign language, gestures) to meaningfully engage children
- Use pictures and/or icons to signal next steps (see following card for an example) and/or each step of the sequence
- Provide prompts and modeling to help the child create a patterned sequence and help the child imitate



Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.



Answer your child's questions. If you do not know the answer, work together with your child to discover the answer.



Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.

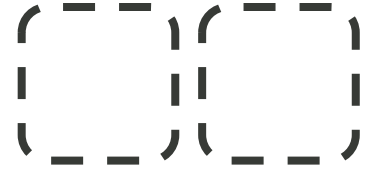
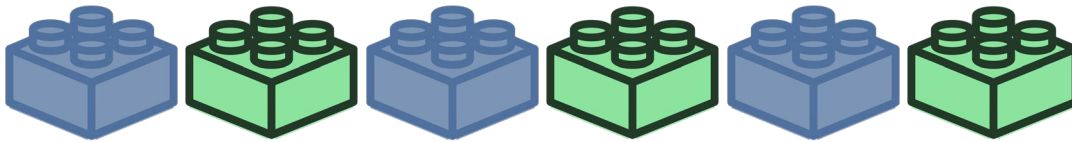
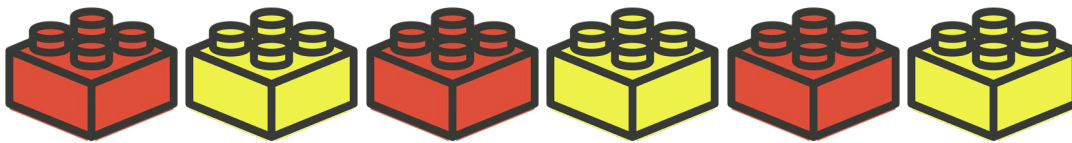


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WHAT COMES NEXT?



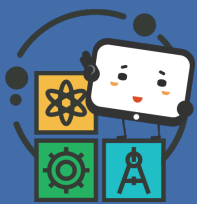
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ADDITIONAL ACTIVITY IDEAS

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- Have the created patterns mean movements (hop, clap, stand) and act out the pattern
- Record different "codes" creating a large "codebook" (can be visuals, slides, notes, etc.) to document different dances the children have created
- Extend the idea to different play and daily activities, *"Can you tell me the steps I need to take to feed the baby? How can I remember what order they go in?"*
- Check out our Exploration Ideas & Adaptations for Patterns in Nature
- Check out our Storybook Conversations for *I See Patterns* by Linda Benton
- Check out our Discovery Play Activities – Let's Talk Patterns!
- Check out these great books about the patterns:
 - *Pattern Breakers* by Daniel Finkel
 - *My First Book of Patterns* by Bobby & June George
 - *Pitter Pattern* by Joyce Hesselberth

