**Lesson 8: Program the Teddy Bear**

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|---|---|
| Powerful Ideas of Computer Science | Algorithms, Representation, Modularity |
| Powerful Ideas of Literacy | Sequencing, Phonological Awareness |
| PTD | Content Creation, Creativity, Collaboration |
| Palette of Virtues | Patience, Open-Mindedness, Fairness, Curiosity, Perseverance |
| Children will be able to… | • Write a program to accompany a dance.<br>• Identify parameters and their purpose.<br>• Change a parameter in ScratchJr.<br>• Share projects with and listen to the presentations of their classmates. |
| Vocabulary | • Parameter: a number instruction that tells ScratchJr how many times to do something |
| Teacher Preparation | • Read lesson plan.<br>• Be ready to project the Teddy Bear, Teddy Bear Slide before class<br>• Use the ScratchJr Block Cut Outs from before or print a new copy and cut out the top label of each page.<br>• Print Lesson 8 Check for Understanding or pull up the Lesson 8 Check for Understanding Slides. |

**Warm Up**

- **Teddy Bear, Teddy Bear** *(Suggested Time: 5 minutes)*
  - Recap the last lesson in which the children planned how they would program their Teddy Bear programs. Today we will actually be writing the program!
  - Before they program it… chant and dance to the Teddy Bear rhyme again!
  - Display the Teddy Bear, Teddy Bear Slide

*Teddy bear, teddy bear, turn around.*
*Teddy bear, teddy bear, touch the ground.*
*Teddy bear, teddy bear, jump up high.*
*Teddy bear, teddy bear, touch the sky!*

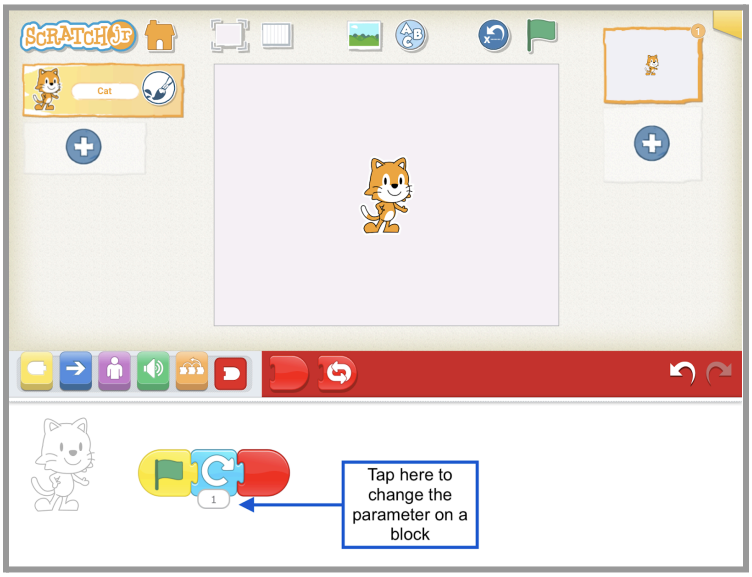
## Opening Tech Circle

- **What is a Parameter?** *(Suggested Time: 5 minutes)*
    - Pull up the ScratchJr Block Cut Outs and point to the numbers at the bottom of the motion blocks.
    - Explain that this number tells the ScratchJr character how many times to move. We can change this number instead of putting many of the same movement blocks next to each other.
    - Explain that we call this number a parameter.
        - **Parameter**: Tells a computer how many times to do that action.

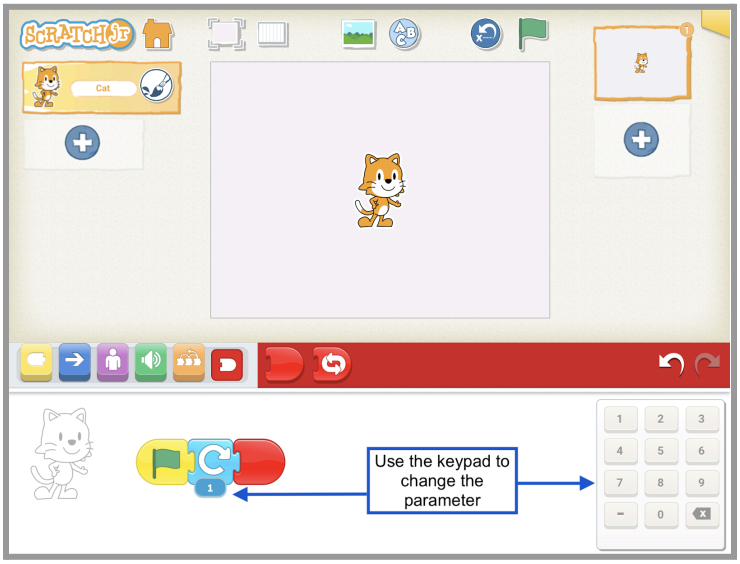
## ScratchJr Time

***Structure Challenge***

- **Parameters** *(Suggested Time: 10 minutes)*
    - Explain how parameters work in ScratchJr
        1. Select the block you wish to change the parameter on. Tap on the bubble with a number to use the keypad to change the number.



2. The keyboard will appear on the right side of the screen.




3. Use the keyboard to change the parameter (max two-digit number).

4. Once you've entered the new parameter, tap anywhere on the screen, and the key will disappear.


5. To relate to the current project, ask children to show what parameter they will use to make their Teddy Bear turn completely around. Children can solve this using trial and error (correct answer: 12).

**Lesson 8 Check for Understanding:** Before starting a new project, check your children's understanding of the new concepts they've just learned. Read each question to the children and have the children respond with a thumbs up for "yes" or a thumbs down for "no." Stop and re-explain concepts as needed.

***Expressive Explorations:***

- **Program the Teddy Bear** *(Suggested Time: 15 minutes)*
  - Take the devices and remind children of any rules or procedures.
  - Remind children of the blocks we brainstormed last time and create their own Teddy Bear program.
  - Choose two students to explain how they made their character turn around. Ask them to explain their thinking process.
  - Ask other students to share what happened along their creative process:
    - Did you learn something new?
    - What are you wondering about this project?
    - Do you have a compliment for someone's work?

**Closing Tech Circle**

- Review sharing procedures.
    - E.g., listening while others present, complimenting each other's projects, and asking questions.

**Opportunities for Differentiation**

- **Additional Activities**
    - Show children each of these programs and ask how many steps are in each program. What number could they make the parameter?