Science Inquiry with *Lyla in the Loop*

Syllabus

Lyla in the Loop is a PBS KIDS animated series for kids ages 4-8. The show stars Lyla, a dynamic 7-year-old Black girl, her close-knit family, fantastical blue sidekick Stu, and a host of relatable and quirky characters living in her city community, who together spotlight creative problem-solving and critical thinking skills while working collaboratively with others.

In every adventure, Lyla collaborates with family and friends to help others in her community while introducing the audience to foundational science concepts. The series supports a wide range of learners, modeling creative expression and flexible step-by-step approaches to problem-solving.

Contact Hours: 1

OCCRA Credit:

To earn OCCRA credit for this course, you must submit the Learning Artifact. The Learning Artifact includes a designated space for your OPIN number.

Course Learning Objective:

Learners will explore PBS Kids Lyla in the Loop to learn how to support developing children's computational thinking by building executive function and social emotional learning.

Demonstration of Learning:

For the learning artifact, learners will identify on the learning artifact document their choice in course resources to select one computational thinking to model and share with students and families.

Course Structure:

This course consists of three parts.

1. Watch - Participate in a live session or watch the recorded session to learn about the skills you will need to complete the course.

2. Learn by Doing - Complete this activity to practice the skill(s) presented.
3. Learning Artifact - an activity to apply knowledge or reflect on practice in your setting required for course credit.

Learning Artifact/Demonstration of Learning: Participants will complete the Learning Artifact Document by identifying Learning Indicators, Resources, and a short description of the learning activity to model and share with families.

Early Learning: CT with Lyla in the Loop

Ohio Early Learning and Development Standards

Strand Standard Statements Key Features of Lyla in the Loop

Science

Strand	Standard Statements
1. Science Inquiry and Application	a. Explores and investigates objects and events in the environment. b. Develops ability to reason about cause and effect.

Skills Checklist

- ❑ **Focus on Science and Computational Thinking**
  The series introduces foundational concepts of computational thinking, such as:
  - ❑ **Sequencing:** Understanding the order of steps needed to complete a task.
  - ❑ **Patterns:** Recognizing and creating patterns to solve problems.
  - ❑ **Debugging:** Fixing errors in plans or processes.
  - ❑ **Algorithms:** Developing simple, step-by-step instructions.
- ❑ **Social-Emotional Learning**
  The characters model teamwork, empathy, and perseverance, showing how to navigate challenges together in constructive and positive ways.
- ❑ **Educational Approach**
  Episodes are crafted to integrate playful problem-solving with educational goals, encouraging young viewers to think creatively and apply the skills they learn to real-world situations.

❏ **Interactive Design**
The show is complemented by interactive digital games and resources on the PBS KIDS website and app, which extend the learning experience beyond the screen.

In the Course:

Prep: Operation: Rise and Shine Lyla in the Loop PBS Learning Media Website

- **Watch: Lyla in the Loop Full Episode | The Carrot Cake Dance | PBS KIDS**
- **Operation Rise and Shine**
  In the "Operation: Rise and Shine" episode from the PBS KIDS show Lyla in the Loop, Lyla and her siblings are continually late for school. It's not just due to one reason, but for reasons that are unique to each of them—their morning routine isn't working. In order to be on time, they collaboratively "debug" their morning routines by identifying the points where each of them encounters problems, and brainstorm alternate approaches to address them.

  This video and the accompanying printable activities are designed to foster students' critical thinking and creative problem-solving abilities. They are intended to help students:

  Identify when a process isn't working as intended.
  Determine potential source(s) of a problem.
  Imagine solutions to a problem.

- **Play: Early Childhood**
  - **Lyla In the Loop: PBS Games Stunt Tricks**
    Lyla needs your help teaching Stu new tricks! Stu can do so many surprising things. Experiment with different sequences to see his super stunts at the playground, skate park, and basketball court.

    Through game play, children will:

    Understand that the design process is iterative and problems can come before improvements or solutions are realized
    Use observations to make changes to the process with the goal of improving outcomes
    Create, identify, modify, or combine algorithms and follow them

- **Explore:**
  - **Afterschool Activity Guide: Lyla in the Loop**

- **Computational Thinking: Afterschool Activities with Lyla and the Loop B&W**
- **Learn STEM with Stu: Activity Cards Lyla in the Loop**
- **Operation Rise and Shine Activity Cards**
- **Operation Rise and Shine Storytelling Set**
- **Lyla in the Loop Coloring Pages**

More Resources:

- [ ] Lyla and the Loop Learning Goals
  - [ ] In Spanish
- [ ] PBS Kids: Lyla and the Loop Games and Activities
- [ ] Routine Chart
- [ ] Learn with Stu: Media Activity Link
- [ ] **Learn STEM with Stu: Activity Cards Lyla in the Loop**
- [ ] **Operation Rise and Shine Activity Cards**
- [ ] **Operation Rise and Shine Storytelling Set**
- [ ] **Watch with a Purpose Printable**

Learning Artifact Google Doc: Early Learning: Science with Lyla in the Loop

OCCRRA Standard:

Standards:Knowledge Based: Learning Experiences

Knowledge Concept:

The principles of integrating curriculum across all developmental domains including how to embed learning in everyday routines and activities.

Level 1:
Describes ways to develop and implement a daily schedule and routine that are appropriate for all children's learning and development. Describes ways to choose a curriculum that includes all domains in Ohio's Early Learning and Development Standards and includes knowledge of individual children and their interests.

The strategies that create a rich environment that fosters curiosity, thinking and problem-solving.

Level 1:
Supports and encourages children's participation in a variety of learning experiences that foster curiosity, thinking and problem-solving.

Standards:

Ohio Educator Standards

4 Teachers plan and deliver effective instruction that advances the learning of each individual student.

5 Teachers create learning environments that promote high levels of learning and achievement for all students

ISTE Educator Standards

2.1. Learner Teachers

continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning. Teachers:

2.1.b. Pursue professional interests by creating and actively participating in local and global learning networks.

2.1.c. Stay current with research that supports improved student learning outcomes, including findings from the learning sciences.

2.5. Designer Teachers

design authentic, learner-driven activities and environments that recognize and accommodate learner variability. Teachers:

2.5.a. Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.

2.5.b. Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning.

2.5.c. Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning