

# DIY SCIENCE TIME



SCIENCE IS WHEREVER YOU ARE!



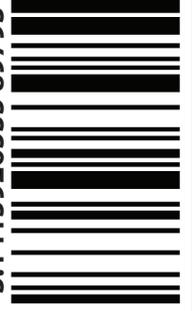
CLASSROOM RESOURCE GUIDE



ALABAMA PUBLIC TELEVISION



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# DIY SCIENCE TIME

"Give science a try,  
with a simple DIY!"



## ABOUT THE SERIES

Join Mister C in his at-home lab for another amazing day of learning as he attempts the world's coolest experiments! **DIY Science Time** is an action-packed adventure that inspires students' curiosity to explore science found in our everyday lives! Mister C brings science to life with hair-raising experiments, toe-tapping music, and media that is sure to capture your imagination!

**DIY Science Time** models the NGSS' science & engineering practices to empower them to be successful independent learners. Are you ready to make the ordinary extraordinary and have fun learning? Mister C is!

## WHO IS MISTER C?

Mister C is not your ordinary educator! As an 19 year education veteran, he has spent time as a classroom teacher, principal, curriculum specialist and district administrator. His specialty is inspiring and engaging learners of all ages using video, music and live presentations.

Mister C can also be found on his YouTube channel, LearningScienceisFun. Millions of learners have had the opportunity to enjoy learning to a different beat with silly songs, exciting experiments and dazzling demonstrations.

Whether online, on-air or live on-stage, Mister C's high-energy and infectiously positive attitude will have you out of your seats, and having fun learning together!



### TEACHER FOCUSED

Activities designed to kickstart critical thinking and minds-on learning.



### STUDENT DRIVEN

Fun activities to introduce students to STEAM learning.



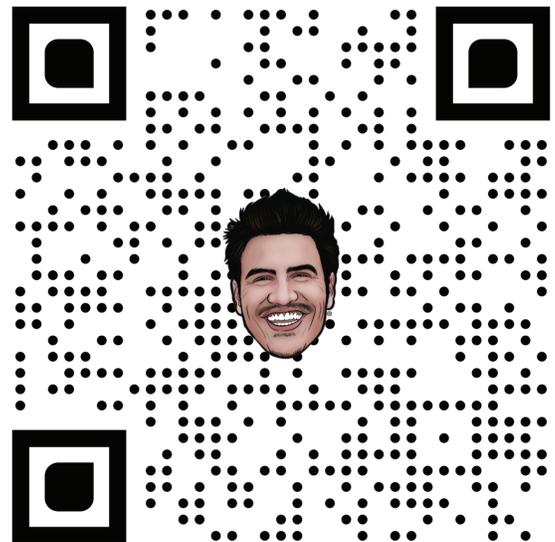
### EDUCATOR CREATED

Mister C created these learning experiences to foster critical thinking and a love for learning.



### SHARE YOUR LEARNING

Snap a photo and share it online.  
**#DIYScienceTime**





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## CURRICULUM OVERVIEW

DIY Science Time takes students and learners on an adventure by modeling scientific inquiry through various experiments, demonstrations and activities. Mister C and his science crew work together to scaffold learning of critical science concepts. The goal of the program is to show learners that **Science is Wherever You Are** and that through determination and exploration, amazing things can be uncovered using scientific investigation.



## SCIENCE & ENGINEERING PRACTICES (NGSS)

Keep these questions in mind as you guide students through activities and while watching the series media.

1. What are the questions we can ask (for science) and how do we define problems (for engineering)?
2. How can we develop and use models?
3. How can we plan and carry out investigations?
4. What ways can we analyze and interpret our data?
5. How can we utilize mathematics and computational thinking to work through the problems presented?
6. How do we construct our explanations (for science) and our design solutions (for engineering)?
7. How do we engage in argument from evidence?
8. How do we best obtain, evaluate, and communicate the information we have learned?

## LAB SAFETY

- Anytime you're doing science, it's important to remember science safety.
- Report all accidents, injuries, & breakage of glass or equipment to your instructor immediately.
- Keep pathways clear by placing extra items (books, bags, etc.) on the shelves or under the work tables to avoid people tripping and falling or spilling materials.
- Long hair (chin-length or longer) must be tied back to avoid catching fire or dipping in chemicals.
- Leave your work-station clean & in good order before leaving the laboratory.
- Learn the location of the fire extinguisher, eye wash station, first aid kit, and safety shower.
- Walk calmly in the lab without running to avoid bumping into materials or one another.



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## ENGINEERING DESIGN PROCESS

**THE ENGINEERING DESIGN PROCESS (EDP)** is a flexible process that can include many variations.

What makes the EDP unique is that engineers AND students can begin anywhere in the process because the EDP is a cycle without a start and end point.

### DILEMMA:

What is the identified problem? Have others approached it? How? What are your constraints?

### ASK QUESTIONS:

What could be a possible solution? Brainstorm ideas individually or with your team. Select one of your ideas.

### MAKE A PLAN:

Draw your design and determine what materials will be needed to build your design.

### CREATE & DESIGN:

Work to make your plan come to life.

### TEST & REDESIGN:

What works? What doesn't? How can you improve your design. Make adjustments to your design and make it better. Then test it again.

### FIND A SOLUTION:

Test, redesign and continue planning if needed until you find a solution.

