ARKANSAS AMI LEARNING GUIDE
Supporting Continuous Learning in Arkansas

WEEK of
May 4 - 8
9:30 - 11:00 A.M.

PBS Arkansas Shows and Times	
SciGirls	SciGirls showcases bright, curious, real tween girls putting science, technology, engineering and math (STEM) to work in their everyday lives.
Arthur	Arthur's goals are to help foster an interest in reading and writing, to encourage positive social skills, and to model age-appropriate problem-solving strategies.
Cyberchase	Cyberchase is an ongoing action-adventure children's television series focused on teaching basic STEM concepts.
Odd Squad	The show focuses on two young agents, Olive and Otto, who are part of the Odd Squad, an agency whose mission is to save the day whenever something unusual happens in their town.

Literacy Corner:

Choose 3 literacy learning opportunities to practice your reading, writing and communication skills. Don't forget to grab a good book and **read daily.**

- **Read an Article:** Read "Freaky Frog" and answer the comprehension questions.
- **Letter to a Community Helper:** In *Buster's Special Delivery*, we learn how much it takes to get the mail ready for delivery. Write a thank you note to your mail carrier or someone else who helps in your community. Be sure to include the date, greeting, body of the letter, closing and signature.
- **How to Get Past Your Fear:** In *Arthur: What Scared Sue Ellen?* a group of friends overcomes their fear of sounds in the forest. Write or tell someone about different ways you overcome your fears.
- **Learn About Childhood in the Past:** In *Clarissa is Cracked*, the main character receives a doll from her grandmother's childhood. Talk to someone older than you to find out about his or her life as a child. You might ask: Where did you live? What were your favorite toys and games? How was school different then?

- **Put on a Puppet Show:** Use materials you have at home to create at least one puppet and a script of what the puppet(s) will say during the show. Record your show for family and friends!
- **Describe a Tree:** In *SciGirls: Terrific Trees,* young scientists learn to record information about two trees that live in their area. Take time to examine a tree near you: describe the soil, estimate the size of the tree, provide details on the surroundings and observe animals in the canopy, on the trunk or on the ground. Use this information to write a scientific description of the tree in its surroundings.
- **Create Art to Show What You Learned:** Think of a person who taught you something important. Create a piece of artwork that includes some of the lessons you learned. Share your artwork and how it represents what you learned from that person.

- **Record Your Autobiography:** Each *SciGirls* episode includes a brief video autobiography about each girl featured in the show. Think about activities you like to do, what you are most proud of, and who lives with you. Record a short video about your life.

- **FREE Choice**- Ask your child about his or her interests? Let them choose something to read, write or learn more about today.

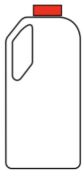
Math Mania:

Choose 3 math learning opportunities to build and reinforce your math skills.

- **Khan Academy and/or IXL:** If you have internet access, it is recommended that your child utilize the Khan Academy modules with built-in instruction to support math learning at least 3 days a week. Select your grade level or type in the web address and select the GET STARTED button. (Counts as one each day) If needed students may select a different grade, regardless of age. (NOTE: You may do IXL instead of Khan Academy if you choose.)
  2nd grade math https://www.khanacademy.org/math/cc-2nd-grade-math
  3rd grade math https://www.khanacademy.org/math/cc-third-grade-math
  4th grade math https://www.khanacademy.org/math/cc-fourth-grade-math
  5th grade math https://www.khanacademy.org/math/cc-fifth-grade-math
  6th grade math https://www.khanacademy.org/math/cc-sixth-grade-math

- **Sugary Scavenger Hunt:** In Arthur's episode, *What's Cooking?*, Arthur ends up entering chocolate brownies in the cooking contest. Do some sweet exploring of your kitchen. Choose a few packaged food items from the kitchen. Write down the number of grams of sugar in each item by looking at the product information available on the food label. A sugar packet contains **4 grams** of sugar. Calculate the equivalent number of sugar packets in each food item using the product information you wrote down. Represent your findings in a graph of your choice (one you already know how to create).

- **Which is More?** A half gallon of milk or 12 glasses of milk with 6 oz per glass? How much more?


OR

x 12

8 oz = 1 cup
2 cups = 1 pint
2 pints = 1 quart
2 quarts = 1/2 gallon

- **Measurement Estimation**: In *Odd Squad: Blob on the Job*, the agents were learning about liquid measurements. Create your own liquid measurement investigation. Fold a piece of paper in half. Label the left side of the paper "Estimate" and the right side "Actual." Then, gather 3-4 different sized containers and a 1 cup measuring cup. Look at each container and guess how many cups of water you think it will hold. Record your estimate on your paper. Then, test your guess by adding one cup of water at a time to the container until it is full. Keep track of how many cups you add as you go. Once the container is full, record how many actual cups of water it took to fill it up. Compare your estimate to the actual results. How close were you?

- **Marker Sharing**
  A. If each box of markers contains 30 markers, and every student gets 1⅛ boxes of makers, how many markers does each student get?
  B. If each box of markers contains 30 markers, and every student gets 4/3 box of markers, how many markers does each student get?
  C. Does part A or part B give students more markers? Explain.

- **A Number Sense Mystery**: In *Odd Squad: Train of Thoughts*, the agents were trying to figure out the pattern to see where the villain would strike next. Improve your number sense skills by solving your own number mystery. Find the answer to the following riddles:

1. What are my two numbers? Their sum is 12, their difference is 6, their product is 27, and their quotient is 3.
2. What are my two numbers? Their sum is 24, their difference is 0, their product is 144, and their quotient is 1.
3. What are my two numbers? Their sum is 9, their difference is 3, their product is 18, and their quotient is 2.

Create your own number riddles and see if someone else can solve them.

- **Card Accumulation**: **100, No More**

Materials Needed: A deck of playing cards for each pair of students (No jokers)
Card Values and Operations:

Aces	add or subtract 1
Kings	wild cards
Queens	subtract 10
Jacks & 5's	add zero
Even numbers	add their face value
Odd numbers(except 5's)	add their face value

1. One player shuffles the cards and deals three cards to each player. The undealt cards remain in a stack face down.
2. Players draw one card at a time from the undealt card stack. Players take turns playing one card at a time, adding or subtracting the value of their card to or from the total accumulating score. Players must have three cards in their hands at all times.
3. Play continues until one player forces his or her partner(s) to go over the score of 100 (Try 50 or 75 especially if more than 2 players).

- **Estimate your Step Speed**: In the *Cyberchase: A Broom of One's Own*, the task was to find out the speed of each broom. The kids measured the distance each broom would travel in five seconds to determine each broom's speed in five seconds. Then, they divided the five seconds of time into one second intervals to determine their broom's speed per second. See the below diagram for a sample broom speed of 5 cyber meters per second.

What is your estimated step speed? Let's find out. Find a space outside where you have a path (grass, sidewalk, etc...) to walk. Count your steps for five seconds. Round the number of steps you take to the nearest five. For example, 37 steps will round to 35 steps and 38 steps will round to 40 steps. Calculate your step speed in one second. You can use the given number line or any other strategy to determine your answer. Time for stepping!

THINK like a Scientist!

Choose at least 2 science learning opportunities for the week.

- **Butterfly in the Sky!** As summer gets closer, more and more butterflies begin to appear in the sky. Right now, millions of monarch butterflies are migrating north and traveling through Arkansas as they go. Go outside and observe butterflies or other insects. Draw pictures of what you see. Make a table and record how many of each type of butterfly or insect you find.

- **Get Coding:** Computers and robots can do a lot of really cool things. What computers and robots do is based on the instructions we give them. We call these instructions **code**. Coding computers begins with thinking about the steps you would need to take to complete a task. Think about a task around your house that a computer or robot could help you accomplish. List each of the steps in the task and write instructions for how to do each step. Ask someone in your family to follow your instructions and see if they can complete the task using your instructions.

- **Wear Your Tech:** Technology is very cool and can be useful in many ways. Think of a piece of technology that you could build into a shirt that would make the shirt look cooler or do something useful. Draw a picture of your design and label the parts. Make a sales pitch: write a paragraph telling what your shirt does and why you think people should use it.

- **Amphibian Scavenger Hunt:** Amphibians are animals such as frogs, toads and salamanders that need water or a moist environment to survive. Over the next 5 days, with a parent, look for as many amphibians as you can find. Draw a picture of each one. What similarities and differences did you observe?

FUN ZONE

- ★ **Get active-** dance, do exercises, create an obstacle course
- ★ **Perform**- Dress up and perform. Act out your favorite story or one you wrote this week
- ★ **Play** a family game (Uno, Heads Up, Battleship, Guess Who, etc…)
- ★ **Make a masterpiece -** use art chalk, paint, crayons, etc.
- ★ Check out the PBS kids for specific games and additional learning opportunities for each show. https://pbskids.org

Freaky Frog (From ReadWorks.org)

A green frog

Will see-through frogs clear the way for frog research?

Green is out! Frogs have a new look that has some scientists jumping for joy.

Scientists in Hiroshima, Japan, have produced see-through frogs. Japan is a country in Asia. The pale frogs are the world's first see-through animals with four legs. Frogs are often used for scientific research. Now researchers can view organs that are under the see-through frogs' skin. Organs are body parts, such as the heart and lungs.

Scientist Masayuki Sumida says the see-through animals provide new ways to study frogs. He says scientists can observe what happens to a frog's organs if it gets sick. "You can see through the skin how organs grow...," he says. "You can watch organs of the same frog over its entire life."

Frogs are cold-blooded. That means their body temperature depends on their environment.
Frogs are also amphibians, which are animals with backbones that spend part of their lives in water and part on land. "That's one of the things that makes them so interesting to study," herpetologist Joseph Collins told WR News. A herpetologist is a scientist who studies reptiles and amphibians.

Collins says students also could benefit from studying the see-through frogs. "Seeing the heart actually pumping and the lungs actually working would be really important to younger students," he says. "It will teach a lot about how the organs work."

Types of Amphibians

Frogs are one of more than 5,000 amphibian species! Keep reading to learn more about some of the other species.

Red-Eyed Tree Frog: These colorful frogs have red eyes and blue and yellow stripes. They live in rainforests in Central America.

Toad: Toads have stubby bodies with warty skin, and they walk instead of hop. Toads live in most parts of the world.

Salamander: Salamanders look like lizards. Some have lungs. They live in cool areas in Europe, North America, and Asia.

Comprehension Questions

1. What is one difference between frogs and toads?
   A. Frogs are cold-blooded, and toads have stubby bodies.
   B. Frogs live in Japan, and toads live in most parts of the world.
   C. Frogs hop, and toads walk.
   D. Frogs are mammals, and toads are amphibians.

2. Which of the following does the author describe last in the text?
   A. The author describes the ways that students can learn from see-through frogs.

B. The author describes what Hiroshima, Japan is like for scientists.
C. The author describes what makes frogs interesting to study.
D. The author describes different types of amphibians.

3. Read these sentences from the text.

> The pale frogs are the world's first see-through animals with four legs. Frogs are often used for scientific research. Now researchers can view organs that are under the see-through frogs' skin. Organs are body parts, such as the heart and lungs.
>
> Scientist Masayuki Sumida says the see-through animals provide new ways to study frogs. He says scientists can observe what happens to a frog's organs if it gets sick. "You can see through the skin how organs grow...," he says. "You can watch organs of the same frog over its entire life."

Based on this evidence, what conclusion can you draw about see-through animals?

A. See-through animals can survive in the wild more easily than regular animals because they are hard to see in their natural habitats.
B. See-through frogs give scientists an exciting new way to study them because they can see the frogs' organs through their skin.
C. Only cold-blooded frogs can be see-through because the skin of warm-blooded frogs is impacted by their veins.
D. The skin of see-through frogs is only see-through when they become sick, so scientists know they are healthy if they can't see their organs.

4. What can be inferred from the text?
A. Scientists can observe the organs of a see-through frog grow over time.
B. Watching the organs of a see-through frog grow and change is disgusting.
C. Scientists may someday work to produce other kinds of see-through animals.
D. See-through frogs are not very helpful to researchers.

5. What is this text mostly about?
A. a scientist and his work with see-through frogs
B. a new kind of frog recently produced in Japan
C. how studying frogs can help students learn
D. how to see the heart and lungs of a frog

6. Read these sentences from the text.

> Collins says students also could **benefit** from studying the see-through frogs. "Seeing the heart actually pumping and the lungs actually working would be really important to younger students," he says.

As used in these sentences, what does the word "**benefit**" most nearly mean?

A. be helped
B. be seen
C. be careful
D. be taught

7. Choose the word that best completes the sentence.
Frogs are cold-blooded, _____ means their body temperature depends on their environment.
A. although
B. therefore
C. which
D. if