



5555 Zoo Boulevard
Wichita, KS 67212
316.660.WILD

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S.T.E.A.M. After Dark

Choose a square • Complete the activity • Check it off

Use this chart however works best for your family. If you need to have daily tasks, follow the calendar. If you want to do a Wednesday activity on Monday, that is perfect too. Activities are perfect for preschool through high school and will help get all students out of the house. Have them take photos of their creations and share the photos with others. The photos can also be a good evaluation tool for parents who are not working from home.

Monday	Tuesday	Wednesday	Thursday	Friday
Become lightning bugs. Use a flashlight to create a new light-blinking language with your family. One blink means "hi." Two might mean "move to the right."	If you have an outdoor fireplace or fire pit, safely build a fire. Roast marshmallows or make s'mores.	Grab a flashlight and explore books about astronomy and space while outside.	Use a projector or take a TV outside so you can have a family movie night.	What what could be better than looking at the stars on a clear night? Print out a map of the stars. To look up into the night sky can be awe-inspiring.
Children love to play with shadows. Use flashlights or outdoor lights to cast shadows onto white walls or hang a white sheet and get the children to stand against it making shadows and shapes.	It's been said that while the day has eyes, the night has ears. You're most likely to hear owls and other animals around your house in the evening. Go outside. What can you hear?	Make a homemade light table from a translucent plastic box with a dark lid. Turn the box upside down and place a light inside. Put natural materials, glass beads, buttons, or sand or rice on top.	Take a walk around the block in the afternoon and then repeat the same walk after dark. The streets are quieter. The sounds are different. You may even notice insects and wildlife you don't usually hear during the day.	Lots of animals are more active at night than during the day. Turn over a rock or log in your yard during the day and then turn over the same rock or log once it is dark outside. Do you see the same things?
Fireflies use flashing light to communicate. Research fireflies during the day to find out how they flash light. Count the flashes once it gets dark. If you do collect them, be gentle and only keep them for a few minutes.	Fill plastic eggs with mini-battery operated lights for a treasure hunt. Add water beads for a special effect.	Grab sleeping bags and camp out under the stars with your family. You do not even need a tent.	Look through binoculars (even the paper tube kind) for "the man in the moon." Look for other shapes and characters.	Touch a rock or the sidewalk. If you have an outdoor thermometer, record the temperature near the rock. Once it has been dark for an hour, do the experiment again. Are the temperatures the same? If not, why not?
Play the game "Raccoon's treasures." Try to sneak a piece of treasure from the "raccoon" and get back to the start without being caught by the raccoon's flashlight beam. If the kids are spotted, they return to the start.	Do a night time scavenger hunt! Have everyone close their eyes while you take a few minutes to hide some items around the yard. Make sure the items will be easy to find by flashlight.	Who needs a disco ball when they have flashlights, a dark night, and the stars above? Give everyone a flashlight, turn on some music and start dancing. Put colored tissue paper over the lenses for added fun.	Go outside and write down how many noises you hear in the first minute. Wait five minutes and record again. You should hear more. Once your hearing adjusts to the quiet of the night, you can hear much more!	Children love to play hide and seek. Hiding in the dark means there are so many more great hiding places. The seeker uses a flashlight to find those who are hiding.



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Give everyone a head lamp or flashlight. While everyone else has their eyes closed, the first person in the game uses their light to spy something around the dark yard for the others to find.	Wake up early to see the world changing back after night. Get up earlier so your kids can feel the dew on their feet. Look and listen as the world around you wakes up for the day.	Find a frog! We have lots of frogs in our area. Woodhouses's toads on the ground and tree frogs in the trees. Listen and look for them but remember not to touch with your hands. If you have a smartphone, you could even play frog calls and listen for a response.	Lie on a blanket on the ground and look up at the stars and clouds. Even though it is dark, you can still see the clouds move by. What else is moving in the night sky?	If you like playing Marco Polo, then you will also enjoy playing bats and bugs. One player is the bat who calls out "bat" and all the others answer "bugs." The bat tries to find the bugs in the dark.
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Kansas College and Career Readiness Science Standards

Grade	KCCRSS	Description
Kindergarten	K-ESS2-2	Construct an argument supported by evidence of how plants and animals can change the environment to meet their needs.
	K-PS3-2	Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.
First	1-LS1-1	Use materials to design a solution to a human problem by mimicking how plants/animals use their external parts to help them survive, grow, and meet their needs.
	1-ESS1-1	Use observations of the sun, moon, and stars to describe patterns that can be predicted
	1-ESS1-2	Make observations at different times of year to relate the amount of daylight to the time of year.
	1-PS4-3	Plan and conduct an investigation to determine the effects of placing objects made with different materials in the path of a beam of light.
Second	2-PS1-1	Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
	2-LS4-1	Make observations of plants and animals to compare the diversity of life in different habitats (day vs. night)
Third	3-LS4-3	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
Fourth	*4-LS1-2	Use a model (fireflies) to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.
Fifth	*5-ESS1-1	Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distance from Earth
	*E-SS1-2	Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.
Middle School	*MS-ESS1-3	Analyze and interpret data to determine scale properties of objects in the solar system

* Additional activity/discussion required.