

**Take A Walk on the Wildside
Outdoor Science Program
2nd Grade
Curriculum Standards/Activity**

Lessons: Earth Science Life Science Physical Science ETS	Grade	State ID NGSS TASS	Description	Standard
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cloud formations	2	2.ESS1	Cloud ID, saturation experiment	*some of earth's natural processes are cyclical/beginning-end. Some happen quickly, some slowly
Water Cycle	2	2.ESS1	Using games and experiments to discover the water cycle	*some of earth's natural processes are cyclical/beginning-end. Some happen quickly, some slowly
Natural Disasters	2	2.ESS1	Study and experiments with tornadoes, flooding, wind. Creating protective solutions.	*some of earth's natural processes are cyclical/beginning-end. Some happen quickly, some slowly
Earth's Surface	2	2.ESS1 2.ESS2	Study of the crust and its elements	*some of earth's natural processes are cyclical/beginning-end. Some happen quickly, some slowly *Observe/analyze how blowing wind/flowing water move natural elements and change the shape of land. *Compare simple maps of different areas- shapes of land/water *Water may be found in oceans, rivers, streams, lakes, pond, etc. *Compare effectiveness of multiple solutions designed to slow changes in the land/water
Erosion	2	2.ESS1 2.ESS2	Using appropriate tools students will create a landscape to deter erosion	*some of earth's natural processes are cyclical/beginning-end. Some happen quickly, some slowly *Observe/analyze how blowing wind/flowing water move natural elements and change the shape of land. *Compare simple maps of different areas- shapes of land/water *Water may be found oceans, rivers, streams, lakes, pond, etc. *Compare effectiveness of multiple solutions designed to slow changes in the land/water
Weathering	2	2.ESS1 2.ESS2	Through observation, experiments and problem-solving students will gain a better understanding of the effect of wind, water, gravity, human impact	*some of earth's natural processes are cyclical/beginning-end. Some happen quickly, some slowly *Observe/analyze how blowing wind/flowing water move natural elements and change the shape of land. *Compare simple maps of different areas- shapes of land/water *Water may be found oceans, rivers, streams, lakes, pond, etc. *Compare effectiveness of multiple solutions designed to slow changes in

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				the land/water
Atmosphere vs Climate	2	2.ESS2	Using appropriate tools and observation skills to determine the cause and effect of natural elements and their definitions.	<ul style="list-style-type: none"> *Observe/analyze how blowing wind/flowing water move natural elements and change the shape of land. *Compare simple maps of different areas- shapes of land/water *Water may be found in oceans, rivers, streams, lakes, pond, etc. *Compare effectiveness of multiple solutions designed to slow changes in the land/water
River Runs through	2	2.ESS2	Using an experiment and a game to understand the flow of the rivers.	<ul style="list-style-type: none"> *Observe/analyze how blowing wind/flowing water move natural elements and change the shape of land. *Compare simple maps of different areas- shapes of land/water *Water may be found oceans, rivers, streams, lakes, pond, etc. *Compare effectiveness of multiple solutions designed to slow changes in the land/water
Topography/Maps	2	2.ESS2	Using appropriate tools, experiments and observation to learn more about Tennessee's topography.	<ul style="list-style-type: none"> *Observe/analyze how blowing wind/flowing water move natural elements and change the shape of land. *Compare simple maps of different areas- shapes of land/water *Water may be found in oceans, rivers, streams, lakes, pond, etc. *Compare effectiveness of multiple solutions designed to slow changes in the land/water
Birds/Worms		2.LS1	While pretending to be a bird, students will observe characteristics of birds and their survival skills	<ul style="list-style-type: none"> *Evidence and observations to explain that many animals use their body parts/senses in different ways *Information to classify animals based on physical traits iverse life cycles through
Beaks & Talons	2	2.LS1	Experiments with various tools and elements to experience how various birds use their body parts to survive	<ul style="list-style-type: none"> *Evidence and observations to explain that many animals use their body parts/senses in different ways *Information to classify animals based on physical traits *show diverse life cycles

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Habitat Room/	2	2.LS1 2.LS2	Students will observe natural habitats	<p>*Evidence and observations to explain that many animals use their body parts/senses in different ways</p> <p>*Information to classify animals based on physical traits</p> <p>*show diverse life cycles through</p> <p>*Develop & use models to compare how animals depend on their surroundings</p> <p>*Predict what happens to animals when the environment changes</p>
Animal Classification games	2	2.LS1 2.LS2 2.LS3	Observation and explanation of natural habitats and plant life, hiking along our trail	<p>*Evidence and observations to explain that many animals use their body parts/senses in different ways</p> <p>*Information to classify animals based on physical traits</p> <p>*show diverse life cycles through</p> <p>*Develop & use models to compare how animals depend on their surroundings</p> <p>*Predict what happens to animals when the environment changes</p> <p>*Use evidence to explain that living things have</p>
Biodiversity	2	2.LS1	Compare various animals and their characteristics in a natural environment	<p>*Evidence and observations to explain that many animals use their body parts/senses in different ways</p> <p>*Information to classify animals based on physical traits</p> <p>*show diverse life cycles through</p>
Virtual Animals	2	2.LS1	Review animals and their various body parts/functions. Use this information to create a virtual animal and explain how the animal survives	<p>*Evidence and observations to explain that many animals use their body parts/senses in different ways</p> <p>*Information to classify animals based</p>

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Quick Frozen Critters	2	2.LS2	Placed in a prey/predator situation, students discover the difficulties of managing survival and with standing human impact.	Develop & use models to compare how animals depend on their surroundings *Predict what happens to animals when the environment changes
Oh Turkey	2	2.LS2	Placed in a prey/predator situation, students discover the difficulties of managing survival and with standing human impact, population control. TWRA	Develop & use models to compare how animals depend on their surroundings *Predict what happens to animals when the environment changes
Model of Pollination Seasonal	2	2.LS2	Students will observe a pollinator garden and recreate the cycle of life dependency- plants, animals, food source, etc.	*Develop & use models to compare how animals depend on their surroundings *Predict what happens to animals when the environment changes
Native Bee Seasonal	2	2.LS2	Observation of native bees, their hive and life cycle (coming soon 2024)	*Develop & use models to compare how animals depend on their surroundings Develop & use models to compare how animals depend on their surroundings *Predict what happens to animals when the environment changes
Pollinator Free Sundae	2	2.LS2	Using the analogy of an ice cream sundae, students will create the experience of spreading pollen like a pollinator.	Develop & use models to compare how animals depend on their surroundings *Predict what happens to animals when the environment changes

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Catapults	2	2.PS2 2.PS3	By using pvc pipes and elastic bands, students will create a catapult and play a life size angry bird	*analyze/evaluate push-pull motion of when objects collide/connect *Demonstrate how various push/pull motions can make things go faster *Conduct experiments to provide evidence that friction produces heat and reduces/increases the motion of an object
Animal Ziplining	2	2.PS2	Using toys and cables, students will create a movable zipline.	*analyze/evaluate push-pull motion of when objects collide/connect
Car races	2	2.P23	Using various sizes if cars and inclines with multiple styles of elements creating friction, students analyze the data and determine what variables create the fastest/slowest speed	Demonstrate how various push/pull motions can make things go faster *Conduct experiments to provide evidence that friction produces heat and reduces/increases the motion of an object
Nitro	2	2.PS2 2.PS3	Participating in a team building activity using our low ropes course, students will experience the push/pull motion	*analyze/evaluate push-pull motion of when objects collide/connect Demonstrate how various push/pull motions can make things go faster *Conduct experiments to provide evidence that friction produces heat and reduces/increases the motion of an object
Rope Shapes	2	2.PS2	With eyes open/closed students will learn to work as a team by push/pull motions to create various shapes	*analyze/evaluate push-pull motion of when objects collide/connect
Band Walk	2	2.PS2	Students will create a plan on how to work together by	*analyze/evaluate push-pull motion of

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			using walking and push/pull motion to walk in a band with unity and progression	when objects collide/connect
Slinky Race	2	2.PS3	Using various items and inclines with multiple styles of elements creating friction, students analyze the data and determine what variables create the fastest/slowest speed	Demonstrate how various push/pull motions can make things go faster *Conduct experiments to provide evidence that friction produces heat and reduces/increases the motion of an object
Sound Waves	2	2.PS4	Create sound waves with various items to understand movement/vibration	*Investigate the cause and effect between vibrating materials and their sounds *Design/build a device to show how light/sound waves travel in waves
Boom Whackers	2	2.PS4	Using Boom whackers to study the creation of sound and specific pitch, students will create/perform a song	*Investigate the cause and effect between vibrating materials and their sounds *Design/build a device to show how light/sound waves travel in waves
Washer boards/lip wires	2	2.PS4	Using household items, students will create homemade instruments and replicate sound with these items	*Investigate the cause and effect between vibrating materials and their sounds *Design/build a device to show how light/sound waves travel in waves
Pitch Pipes	2	2.PS4	Using various size pipes students will connect the idea of size/sound	*Investigate the cause and effect between vibrating materials and their sounds *Design/build a device to show how light/sound waves travel in waves
Humpty Dumpty II	2	2.ETS1	A revised version of an egg drop	*Define a simple problem that can be solved through creating a new/improved

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				<p>tool</p> <p>*Recognize that to solve a problem, one may need to break it down into sections or parts</p> <p>*Compare/contrast strengths & weaknesses of an item</p>
Jenga Tower	2	<p>2.ETS1</p> <p>2.ETS2</p>	Using massive wood blocks, students play the game Jenga	<p>*Define a simple problem that can be solved through creating a new/improved tool</p> <p>*Recognize that to solve a problem, one may need to break it down into sections or parts</p> <p>*Compare/contrast strengths & weaknesses of an item</p> <p>*Using appropriate tools to make observations, record data, refine designs</p> <p>*Predict, explain life/natural world without technology</p>
The Birds	2	2.ETS2	Using binoculars, students play bingo and discuss/create other options to binoculars	<p>*Using appropriate tools to make observations, record data, refine designs</p> <p>*Predict, explain life/natural world without technology</p>
Rockets	2	<p>2.ETS1</p> <p>2.ETS2</p>	Using paper/pvc pipes, students will create a functionable rocket that will be launched with an air compressor.	<p>*Define a simple problem that can be solved through creating a new/improved tool</p> <p>*Recognize that to solve a problem, one may need to break it down into sections or parts</p> <p>*Compare/contrast strengths & weaknesses of an item</p> <p>*Using appropriate tools to make observations, record data, refine designs</p>

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				*Predict, explain life/natural world without technology
Global Trash monsters/Human footprints	2	2.ETS2	Using clean trash students will design a replica of a tool to solve a world problem	*Using appropriate tools to make observations, record data, refine designs *Predict, explain life/natural world without technology