**NACA Kindergarten Science Activities**

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| **Activity** | **Calendar** | [**Evidence Statements(s)**](http://www.nextgenscience.org/evidence-statements) |
| **Ball and Cart Games(culture)**Have students investigate how pushing or pulling on balls and carts with different strengths affect their motion. This could be incorporated into physical wellness activities. |  | [K-PS2-1](http://www.nextgenscience.org/file/2711/download?token=cfP71CF2). Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.  |
| **Mini-Golf (maybe culture)**Students create mini-golf courses that guide golf balls along specific pathsTry different set-ups for comparison |  | [K-PS2-2](http://www.nextgenscience.org/file/2716/download?token=8ZhTIg4m). Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.[K-2-ETS1-1](http://www.nextgenscience.org/file/3156/download?token=xVw05hNY). Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.[K-2-ETS1-2](http://www.nextgenscience.org/file/3161/download?token=c6xQQ3-u). Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.[K-2-ETS1-3](http://www.nextgenscience.org/file/3166/download?token=bRcXyos3). Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. |
| **Sun Effects Activity** Leave multiple materials in the sun and describe how those materials change over time (water evaporating, different materials becoming relatively hotter, soil drying, etc.) | Spring | [K-PS3-1](http://www.nextgenscience.org/file/2721/download?token=iV7gV2qc). Make observations to determine the effect of sunlight on Earth’s surface.  |
| **Garden Sun Shade Activity**Create a shade over a garden area that is too hot or drying out too fast.Determine whether the structure is working (increased shade, decreased drying/temp) Try different types of shade structures to compare. | Spring | [K-PS3-2](http://www.nextgenscience.org/file/2726/download?token=BM_qgXiV). Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.\*[K-2-ETS1-1](http://www.nextgenscience.org/file/3156/download?token=xVw05hNY). Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.[K-2-ETS1-2](http://www.nextgenscience.org/file/3161/download?token=c6xQQ3-u). Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.[K-2-ETS1-3](http://www.nextgenscience.org/file/3166/download?token=bRcXyos3). Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. |
| **Plant & Animal Story Activity 1 (connectedness to animals)**In any story, prompt students to share what they observe about what is needed to survive. Keep track of this information on a board where students will start to see patterns. Repeat this process with any discussion of plants or animals (pets, gardening, etc.)After sufficient observations are recorded, guide students through discovery discussion about the patterns they see. | Ongoing with stories told at culturally appropriate times | [K-LS1-1](http://www.nextgenscience.org/file/2731/download?token=vTAJiMx6). Use observations to describe patterns of what plants and animals (including humans) need to survive. |
| **Plant & Animal Story Activity 2*** Collect observations (from media and personal) about how plants & animals (including humans) change their environment
* Students work in small groups to identify patterns from these observations (specifically that plants & animals change their environment)
* Students describe how the observations support their claim and how specific needs are met by the changes
 | Ongoing with stories told at culturally appropriate times | [K-ESS2-2](http://www.nextgenscience.org/file/2741/download?token=Ezv2Q-LJ). Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.  |
| **Plant & Animal Story Activity 3** * Create a felt story board based on the discoveries from Plant & Animal Story Activity 1 & 2 (types of plants & animals, needs, environmental components [water, light, etc.])
* Students use the felt board to describe the connections between a specific plants or animals an the places they live (this process should be modeled during stories throughout the year)
	+ What does the specific plant or animal need to live?
	+ What does the location provide?
	+ How does the location meet the needs of the plant or animal?
 | Ongoing with stories told at culturally appropriate times | [K-ESS3-1](http://www.nextgenscience.org/file/2746/download?token=cq7yOc2L). Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.  |
| **Weather Monitoring (how native people follow/use seasons)*** Multiple times each day students observe and record the weather conditions (morning circle?)
* After sufficient observations, guide students through analysis of data (counting sunny days, comparing sunny to cloudy days, cooler in mornings, months with different weather patterns, etc.)
* Record and read about severe weather alerts, encourage students to ask questions about the alerts
 | Ongoing (alerts during high rain & wind months) | [K-ESS2-1](http://www.nextgenscience.org/file/2736/download?token=ma3o1VoB). Use and share observations of local weather conditions to describe patterns over time. [K-ESS3-2](http://www.nextgenscience.org/file/2751/download?token=yEiE_1Mh). Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather. |
| **Conservation (responsibility for our land/taking care)*** Learn about how specific products/resources are developed from natural resources
* Identify ways to reduce impact on natural resources
* Participate in these reduction efforts (recycling program, lights out campaign, etc.)
 |  | [K-ESS3-3](http://www.nextgenscience.org/file/2756/download?token=_eUMy7gQ). Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.\* [K-2-ETS1-1](http://www.nextgenscience.org/file/3156/download?token=xVw05hNY). Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. |