**Alignment of the Learning Zone Experiences in Knock Knock Children’s Museum**

**with the *Common Core State Standards* in K-3rd Grade**

|  | English Language Arts | Mathematics | Science |
| --- | --- | --- | --- |
| **Learning Zones and Experiences** | Reading - Literature | Reading – Informational Texts | Reading – Foundational Skills | Writing | Speaking and Listening | Language | Counting and Cardinality | Operations and Algebraic Thinking | Number and Operations | Measurement and Data | Geometry | Science and Engineering Practices | Disciplinary Core Ideas | Crosscutting Concepts |
|  **Knock Knock Square** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clock Tower – Every hour on the hour, the clock will chime and two animatronic birds will tell knock knock jokes. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Storybook Stage - This stage provides a setting for performing arts, story retelling, singing, and performances for and by the children. The stage includes a projection screen where books, authored by local children, can be viewed and enjoyed. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Puzzle Cubes - Large foam cubes, big enough to sit on, include alphabet, picture puzzle, and geometric patterns. Children can arrange and rearrange the cubes to form words, solve puzzles, and create parquetry patterns with shapes. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Game Tables – Children play board games such as checkers, Chutes & Ladders, lotto, bingo, with peers or adults, card games |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Story Tree** |  |  |  |  |  |  |  |  |  |  |  |  |
| Story Tree – In the Story Tree’s canopy are letters and iconic objects from classic stories. The tree trunk has 14 doors, 13 of which include familiar phrases from children’s books.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Video Periscope - A 14th door in the Story Tree opens to a space where children can steer a video periscope to see 6 hidden objects mounted high in the tree canopy and is related to familiar and best-loved children’s books.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Word Search Discovery Doors – Four doors in the Story Tree trunk open to reveal prompts to find words spelled out by letters hanging in the tree. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bookshelves and Bins – This area will serve as Knock Knock’s library with a well-rounded collection of books appropriate for various age groups with images reflecting the diverse populations the museum will serve. The collection will include both fiction and informational books organized by linkages to the KKCM Learning Zones. There will be books of many different genres. Story retelling props related to selected books will be available to support children’s comprehension skills. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Message Tube Stations – There will be two stations for writing and receiving messages. The stations are connected by clear acrylic tubes (much like at a drive-through window at a bank) where children can see their messages propel to a friend. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rub a Word Table – Textured letters are engraved on a tabletop so children can create rubbings of letters, words, or their name. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Book Making – A low cart on wheels can be brought into the art garden when book making is the activity of the day. With the help of staff or volunteers, children can scan their drawings, print them, and bind them. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Go Go Garage** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Convertible Tune-Up – A stylized convertible, its hood removed, is parked in the repair bay. Kids can get into the front seat and pretend to drive, remove a dipstick to check the oil, or fill the gas tank from a nearby pump. Both front tires of the car are changeable with lug nuts and wrenches stored nearby. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clipboards with Service Ticket Forms – Children learn the functional use of print as they complete a checklist of tune-up items to undertake – change the tires, check the oil, fill up the tank, etc. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Car Design Tracing Tables – At a low light table, kids trace images of parts of cars, combining them in inventive ways to design their own vehicles. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tabletop Car and Truck Roadway – Children build small vehicles and then test them, experimenting and making adjustments of ramps and pathways. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Go-Through Car Wash – Entering through a curtain of clear vinyl strips, kids move through a space mounted with soft “buffers” that revolve. On the exterior of the car wash, kids spin wheels and push buttons to activate the turning of the buffers and trigger sound effects of water gushing from hoses and air blasting from dryers. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B.R. Star Studio** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In this mirrored dance studio, children push buttons to select a genre of dance---ballet, hip hop, line dance, jazz, and more. In two panels of the mirrored wall, a dance video, led by a group of local children, appears and children are invited to join in the fun. Props and costumes related to the video clips hang on pegs near the entrance. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PVC Percussion Interactive **–** A large, fanciful percussion instrument constructed of PVC pipe will allow children to investigate how sound is made. Children and adults can create rhythms collaboratively. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fish Tales** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Magnetic Fishing Game – Kids catch realistically screen-printed fabric fish that represent a variety of fish found in Louisiana’s waters. Magnets attached at one end let children hook them and release them easily.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fishing Derby Writing Station – A countertop writing station provides reference photos that allow children to identify their fish by name. A ruler embedded in the countertop lets kids measure their fish before posting their results on a Fishing Derby chalkboard. They can write their names and keep track of how many fish of each type they catch. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Animal Tracks and Wildlife Mural – Children will be able to match animal footprints embedded in the floor to the animals included in the mural of a nature scene near the water’s edge. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Pelican Pantry & I See Food Café** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pelican Pantry Play Food Bins & Cases - Play food items are sorted and grouped as they are in a local supermarket. Children use recyclable bags for shopping. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Where’s It From?* Scanner Station - Children scan items and then see on a monitor where the food comes from and how it was grown and harvested. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Go, Slow, Whoa!* Scanner Station – Children select an item and use a hand-held scanner to trigger images that appear on the monitor with nutritional information about the item and the category (Slow, Go, or Whoa) in which it belongs. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Checkout Stations – Pelican Pantry has 2 checkout stations with a non-working conveyer belt and scanners for pretend play. Each station has a cash register with working buttons that lets kids match pictures of the item in their cart, adding up their prices, and displaying the total as a read out. Kids can also turn on and off a lighted sign at each register indicated if they are open or closed. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| I Seafood Café Pretend Play - Kids put on chef’s hats and aprons, pretend to cook one of the daily specials written on a wall-mounted chalkboard menu, assemble sandwiches and salads, make seafood gumbo. A phone is available for take-out orders. Children take orders using clipboards, picture/word order forms, and writing tools. Customers sit at the counter on stools. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Art Garden** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Art-Making Tables and Art Easels– Tables are set up for exploring, experimenting, and creating with a variety of open-ended art materials. Easels provide a different perspective for paintings. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Light Table with Pattern Making - A light table offers a surface for pattern-making activities using translucent plastic pieces. Tangrams will be included with changeable graphics mounted that show the challenge puzzle of the day.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Group Projects Platform – A platform on the floor is provided to raise large group collaborative projects, making them easy to work on from all sides. An example of a group project might be a car or building made from boxes and reusable items. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Artist-in-Residence – There is a small space designated for an artist-in-residence to set up a work table and/or easel. Similar art materials (e.g., water colors, clay) will be made available to the children for their own creations. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Maker Shop** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Simple Circuits - In a circuit, electricity travels in a circle. If there is a break in the circle, the electricity is stopped in its path. Discover the wonder of circuit building to figure out how electricity flows. Tinker with batteries, bulbs, switches, lights, buzzers, motors and other electrical parts to create simple circuits using circuit blocks and everyday materials. A few of these electrifying activities are explored. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cardboard Challenge -Turn cardboard boxes into the best toys ever! Take boxes apart, cut them up, tape them back together, add a little bling, and use your engineering design skills to reuse this versatile material in creative ways. Use simple materials and real tools to build anything that you can imagine! Learn various techniques for attaching cardboard together such as flanges, slots, L-braces, and other fasteners. Figure out how to make strong structures using cardboard. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Light and Shadow Play -Light is all around us and it comes in many forms---sunlight, light from a firefly, artificial light, and even light from animals that glow. Explore light, shadows, and motion using a variety of simple materials and light sources. Place mirrors, lenses, prisms and filters in the path of beams to reflect, bend, or mix light in many ways. Make a rainbow! Use a variety of materials to explore concepts of translucency, opaqueness, and transparency. Use light from projectors and webcams to transform small objects into gigantic ones on a big screen. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Make It Move! -Roll, slide, bounce and spin! Discover many ways that objects can move. Use a variety of materials to explore the six different types of simple machines to help things move: levers, wedges, wheels, inclined planes, pulleys, and screws. Play with the science of motion as you learn about movement, force, speed, inertia, and gravity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mini Robotics -ROBOTS! But just what is a robot? It’s a machine that gathers information about its environment (senses) and uses that information (thinks) to follow instructions to do work (acts). Robots are not just human looking machines you see in movies like R2D2, CP30 or Wall-E. In fact, most robots don’t look like people. Engineers use robots to make our lives easier with inventions like automatic doors, automatic faucets and hand dryers, vending machines, remote control cars, roomba vacuum cleaners and automatic tellers (ATMs). Learn to code through hands-on play with simple robotics. Use manipulative materials to learn about sensors, motors and the digital world. Become a storyteller by programming a robot to move through the scenes of a story. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ReMAKE It! - Keep creative materials and reusable resources out of the landfills and put them in the hands of imaginative creators and inventors! It’s good for children, good for business and industry, and good for the Earth! Learn to use child-safe tools for taking apart old small appliances and computers apart and reusing the parts in creative ways. Problem solve the best ways to attach parts and pieces. Playing with, deconstructing, reusing materials fosters creativity, problem solving, an understanding of sustainability, and an awareness of protecting our planet. Put your engineering skills and imagination to work. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sensational Structures -What does an architect do? A structural engineer? A contractor? A carpenter? A structure is where it all takes shape. Learn about the various jobs within the building industry and imagine yourself hard at work. From drawing blueprints to exploring structural stability requirements, and from connecting with blocks and exploring materials, you’ll walk away with a whole new understanding of what it takes to create buildings across the globe.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Terrific Textiles and Wonderful Wearables -Tinkering with textiles and creating wearables integrate art, design and technology. Explore simple and complex patterns, learn where fabrics come from, investigate tools and techniques, compare different textures and features of fabrics and SEW much more! Learn about the hot new trend---eTextiles---and learn how to add digital bling to creations. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Toys and How They Work - BREAK apart a few old toys to see what’s inside! How do they work? How were they made? Learn the science behind a Magic 8 Ball, an Etch-a-Sketch, a wind-up toy, or a slinky. What gears, mechanisms, circuit boards, parts or contraptions are combined to make just the right movements? Taking apart toys gives a chance to look at some of the ways that can transform one kind of motion into another. Investigate toys by building and taking them apart with screwdrivers, seam rippers, scissors and saws! Build versions of toys using recycled materials. Play and investigate toys in a new way. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Zoom, Zoom, Zoom! Things That GEAUX! - RAMP IT UP! Let’s ACCELERATE knowledge about speed, velocity, ramps, motion, force, energy, wind, lift and more! Investigate, create and explore things that go like bicycles, airplanes, boats, trains, and automobiles in many ways! Learn about who works with vehicles and the types of tools used to work work. Physics can be so much fun. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Knock on Wood Woodworking - Explore real tools and discover what each can do. Learn to use hammers, screwdrivers, sandpaper, drills, files, and pliers to freely create and build safely. Use all types of raw materials such as cut lumber, scrap wood along with a variety of fittings like glue, nails, and screws. Although the woodworking process is more important than a final product, it is the opportunity to conceptualize a project, create a plan, decide which materials and tools to use and build a creation. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sound Play- Learn about the science of sound--- hear it, see it and feel it! Explore the wonder of how sound travels using microphones, amplifiers, headphones, and everyday objects. Investigate what can be done to make sounds loud or soft, high or low, fast or slow. Explore different musical instruments to see how sound is created and then try to create sound from reusable resources. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |
| **By-You Building Company** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| I-10 Bridge - A scaled down replica of the Mississippi River bridge invites children to push a wheelbarrow filled with foam boulders from one end to the other, place orange traffic cones in the roadway, or pretend to drive toy trucks and other construction vehicles from one side of the river to the other. Along one side of the bridge, children can add lengths of bracing with Velcro attachments or put up “Caution – Construction Area” tape. Some sections of the bridge are magnetized and kids can decorate them with signs related to traffic, detours, and “hard hat area” warnings.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction Crane - A child can operate a large crane, picking up and moving foam boulders on the riverbank from one bin to another. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Catenary Arch – Families are challenged to work together to build a tall catenary arch across a narrow strip of the Mississippi using large foam blocks.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wood Block Construction Table - A low table provides a surface for small kids to build with blocks of various types. Graphic signage with inspirational photos prompts children to try to build specific structures, from the very simple to fairly elaborate. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Building Projects Workstations – Three side-by-side workstations offer a changing array of simple construction projects in a variety of materials, e.g., Legos, tinkertoys, K’nex, etc.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Real Tools Workstation - Activities at this workstation feature real tools, not sharp enough to be dangerous and tethered safely to the worktable, used in a changing selection of long-term projects. For example, a large block of wood mounted to the table presents kids with an opportunity to use a hand saw. Each child might only saw a small increment, but over time, the block of wood will split in two.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Duplo Bridge-Building Challenge – Children are challenged to work together, or to work with an adult, to build a bridge from point A to point B, using Duplo bricks.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tool Display Wall – Real tools of all shapes and sizes – saws, pliers, hammers, drills, wrenches, planes and sanders are displayed and labeled so children can learn new words. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wind Tunnel – Using lightweight materials provided in bins surrounding a large, transparent wind tube, children build structures that they can introduce into the tube, push a button to start a powerful fan, and watch to see if their construction survives hurricane force winds.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pipe Assembly- Children build fanciful constructions by adding lengths and curves of PVC pipe to sections already mounted in a grid on a low base. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Bubble Playground** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bubble Window – A hose inside an acrylic box continuously fills it completely with a changing stream of bubbles, offering children a chance to closely observe phenomena such as surface tension, evaporation, and light refraction |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bubble Table – Kids use tools – wands, cones, containers, cookie cutters – of different shapes, sizes, and materials to make bubbles, experimenting to see how long they last and how big or small they can be. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3D Bubble Wands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Paws and Claws Clinic** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stacked kennel crates and tanks house stuffed animals representing a diversity of kids’ favorite pets. Removable clipboards are attached to each cage, containing a chart with that animal’s name, age, “symptoms” and /or grooming services requested. Kids can take the clipboard with them to the exam or grooming table and return it when they put the pet back in its kennel. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Discovery Drawer Cabinet – A clinic cabinet with multiple drawers presents touchable specimens – feathers, fur, shells---as well as others fragile enough to need to be protected under glass (e.g., a snake skeleton). |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Microscope and Slides – A handheld video microscope is tethered to a workstation. Children can use the microscope to examine a selection of touchable objects, e.g., fur, skin, claws. The microscope can also be used to let children examine their own fingernails, skin and hair and make comparisons between themselves and their pets.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exam Table and Tools – At a low exam table, children can measure their pet patient with a measuring tape pretend to weigh it in an animal scale, take its blood pressure with a Velcro cuff, check its breathing with a stethoscope, examine its eyes with a flashlight and ears with an otoscope, put a splint and bandage on its leg, give an injection with a toy syringe, pretend to give it medicine from an eye dropper, or attach a halo collar.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grooming Table and Tools – At a low stainless steel counter with a nonworking sink and faucet, children pretend to go through the six steps of grooming their pet, e.g., brush coat, check for fleas, wash with shampoo, rinse, towel or dry hair, trim nails. A poster with the sequence of steps is displayed above the table. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Light Box with Animal X-Rays – Kids use a wall-mounted light box to examine x-rays of animal body parts, some of which might show foreign objects swallowed by the animal.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demo Counter/Reception Desk – The clinic’s reception desk doubles as a demo counter for live presentations by veterinarians. When not in use for a program, the counter functions as a reception desk, with a telephone, patient chart, appointment calendar, and a changeable “Pets We Love” display board for photos or drawings of children’s favorite pets. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kitchen – The house’s inviting kitchen, with a nonworking stove, sink and refrigerator, is filled with cooking tools, utensils, and furnishings from a variety of cultures.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ship Shape** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sidewalk Games – A hopscotch court is laid out with simple pictorial instructions for how to play the game in different cultures.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ship Shape Challenge: Ledge Trek – Kids are challenged to make their way from one end to the other of a low curb that veers around corners, using climbing wall hand-holds to hang on.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ship Shape Challenge: Pull Your Weight – Children see how high they can raise themselves on one of two pulley-operated sling chairs.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ship Shape Challenge: How High Can You Jump? Sensors measure how high visitors can jump, displaying their jump height in numbers of feet and inches, with lights ascending to the top height reached.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ship Shape Challenge: Hang Time **-** Kids hang by their arms from a low beam while a timer measures how long they can hang, a test of upper body and arm strength. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ship Shape Challenge: Balance Test – Children see how long they can stay on a teetering balance board, getting a readout of their elapsed time. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Multilevel Climber – Themed as a windswept swirl of giant books being transported by a barge up the river, this multilevel climber offers opportunities for full body exercise.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pilot House Kinetic Wall - Children activate the gears, whistles, horns and ball runs of an interactive kinetic sculpture themed to suggest the engine and inner workings of the tugboat. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |