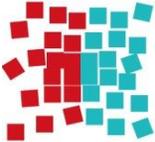
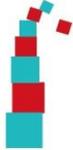
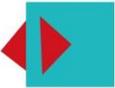
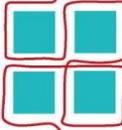
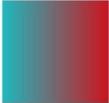
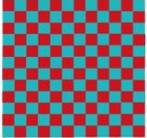


<b>Michelle Thornhill</b>		<b>Loose Parts and Intelligent Playthings Categorized By Schema</b>					
<b>If your child loves:</b>	<b>(S)He may be exploring</b>	<b>Loose Parts</b>	<b>Natural Loose parts</b>	<b>Large play</b>	<b>Recyclable/ Repurposed</b>	<b>Additional tools/ bases</b>	<b>Commercial Toys/ Gifts *</b>
Train sets, buckles, Lego, harnesses, fridge magnets, stickers, marker caps, shoes	<b>Connecting</b> 	Popsicle sticks, match sticks, golf tees, paper clips, binder rings, carabiners, felt pieces, tissue paper pieces, elastics, fabric, paper, burlap, balsa wood, post-its, labels, glow stick bracelets, pipe cleaners, belts, Velcro hair rollers, corks, pins, box rivets, screws, nails, binder clips, spring snaps, bolt snaps	Earth magnets, roots, ground pine, vines, spruce sap (for glue), beggar ticks, burdocks, thistle flowers, leather cord, dandelion stems (for chains), dried bones, wet leaves, sand, snow, ice	Log rounds or stumps for stacking, tires, boards, wooden spools, webbing, lumber, pallets, logs, ropes and carabiners	Containers with lids, bread clips, pvc pipes, nuts and bolts, electrical wires, marettes, twist ties, buckles and snaps from discarded items, velcro from old clothes, broccoli elastics, straws	Hammer, tape, glue, twine, rope, yarn, bungee cords, hooks, chains, cable ties, latches and fasteners, tongs, webbing, flannel, stapler, safety pins, contact paper, magnetic surface, corkboard	Knex, gear sets, slot-a-shape builders, magnet builders, unifix cubes, Ring-a-ma-jigs, Goldie Blox, Straws & connectors, bristle blocks, Magneatos, puzzles, Snap Circuits, Brik-a-blok, Mecanno Jr., train sets, Barrel of Monkeys, snap together beads
Cutting with scissors, knocking towers down, making play dough into small segments, tearing pages from books, taking apart electronics or devices, destroying objects, removing couch cushions, cutting hair	<b>Disconnecting/ Deconstructing</b> 	String, paper, tissue paper, cardboard, balsa wood, floral foam, styrofoam blocks, dominoes, glow sticks, water beads, balloons, evaporated cornstarch water (for cracking), colored tape for peeling and cutting	brittle sticks, dead branches, peeling bark, leaves, daisies, mushrooms, ice puddles and other ice forms, dry mud, clamshells, cobwebs, dried lavender, catkins, sandstone, pinecones, seed pods, coconuts, slate rock, lumps of brown sugar, fungus, cattails, dried herbs, flowers, food items for cutting and peeling	Giant cardboard boxes, haystacks, snowbanks, balloons, sand, stacks of tissue boxes	Telephone books for stacking and knocking over, magazines for cutting, egg cartons, bubble wrap, crushable cans and bottles, corks, used electronics, knitted articles to unravel	Mortar and pestle, safety knives, safety scissors, hammer, clippers, pliers, mallet, saw, screwdrivers, hole punches, fly swatters	Battat Take-Apart sets, toy demolition vehicles, silly putty, excavation kits, magnet builders, Unifix cubes, wooden block sets, "Thin Ice" game, "Scratch Magic" art
Airplanes, car crashes, balls, sharks, birds, Superman, throwing toys, throwing food, jumping off things, knocking things down, expressive art, basketball, bubbles, explosions	<b>Trajectory</b> 	Paper, pompoms, rubber bands, balloons, corks, beanbags, spoons, rulers, ping pong balls, string, ribbons, cotton balls, felt balls, koosh balls, pieces of foam, sponges, pillows, boards and cylinders (for catapults), tea pot, watering can, home-made pipe cannon for balls	Helicopter pods, feathers, leaves, flat rocks for skipping, stones for tossing into water, sticks, pinecones, Y-shaped branches (for slingshot), swinging vines, live insects, cottonwood fluff, dandelions, bursting wild snapdragon pods, snowballs, sticks as fishing poles, palm branches	Planks, cable spool, skate ramp, platforms, ladder, chairs, yoga ball, slide, sled, rain gutters, a pair of trees and physio band for giant slingshot, pliable birches (for swinging), pool noodles	Pipes, scarves, plastic bottles (for rockets), paper towel tubes, broccoli elastics, springs, plastic spoons, buckets for ball toss, boxes for crash zone, inner tubes, film canisters, boxes and cartons for knocking down	Hammers, saws, mortar and pestle, targets, hoops, mini zip lines, fans, launch pad, balcony, antacids and vinegar for rockets or "pop the top", open field or water for throwing natural loose parts	Hot Wheels tracks, catapult kit, marble run, trebuchet kit, construction sets with ramps, rocket building kits, boomerang, propeller toys, Frisbees, kites, Skyrocopter, Stomp Rockets, Micro Shotz, soda rockets, "Perfection" game

If your child loves:	(S)He may be exploring	Loose Parts	Natural Loose parts	Large play	Recyclable/ Repurposed	Additional tools/ bases	Commercial Toys/ Gifts
Forts, hide and seek, putting toys to bed, burying items in sand, wrapping presents, eggs and nests, hats, being inside cupboards, painting entire canvas, Lego enclosures	<b>Enclosing/ Enveloping</b> 	Scarves, fabric, lace, towels, boxes, spools, paper towels, tissue paper, mailer tubes, solo cups, aluminum foil, foam pieces, folding steamer basket, plastic Easter eggs, locks and keys, hinges, hair rollers, sponges, nesting baskets, tissue paper, ribbons, yarn, plaster cloth, cheese cloth, toilet paper, Claycrete paper mache, Paperclay	Piles of leaves, sand, mud, clay, walnut halves, clam shells, pine spills, dirt, palm branches, geodes, seed pods, flowers, petals, straw, pea stone, twigs, nests, hollow logs, leather hides, birch bark, hollowed or halved coconut shells, pumpkins, gourds, lotus pods, corn husks, giant leaves	Cardboard boxes, stacks of tires, tents, long tree limbs (for forts), blankets, tarps, tables, chairs, couch cushions, pallets, cylindrical concrete forms, plastic culverts, haystacks, ball pit	Fabric remnants, old hats and shawls, belts, watches, plastic containers, cups, electrical wire, cardboard tubes, egg cartons, envelope discards from card stores, wrapping paper, newsprint, magazines, bubble wrap	Clothes pins, safety pins, rubber bands, string, tape, Velcro tape, twist ties, magnifying glass, Washi tape, Mod Podge, Silly Putty	Magnatiles, Russian nesting dolls, stacking cups, Lego, Brik-a-block, crazy forts, sleeping bag, igloo mold, skipping rope, mosaic kit, piggy bank, piñata, doll clothes, latches board, hollow blocks, mailbox, excavation kit
Elevators, balls, towers, dropping objects on purpose, scribbling up and down, building tall towers	<b>Dynamic Vertical</b> 	Scarves, beanbags, pompoms, cushions, string, rope, spools, beads, foam balls, ping-pong balls, corks, wire, bean bags, watering can, tea pot, slinky, confetti, blocks for stacking, spools, paper clips, dice, dominoes, light switches, chains, springs, barrel bolts	Rocks for stacking, pinecones, water, feathers, sticks, helicopter pods, leaves, acorns, crab apples, hanging vines, icicles, palm branches, wood pieces for stacking	Stacks of tires, platforms, chairs, ladders, walls, tree trunks, fences, couch cushions, cylindrical concrete forms, trampoline, dumbwaiter, fireman pole, deep hole, water pump	PVC pipes, wrapping paper tubes, Pringles chip containers, K-cups, yogurt cups, cans, zippers, tissue boxes, Yop bottles, solo cups, empty boxes, straws, coiled telephone cords	Plumb line, retractable tape measure, pulleys and ropes with bucket, small hand winch, mashers, mortar and pestle, funnel, turkey baster, hour glass, thermometer	Connect 4, stacking toys, hammer and peg set, bead maze, toy elevator, parachute men, rocket kits, skipping rope, ball & jacks, trampoline, Ogodisk, Micro Shotz, Stomp Rockets, Jacob's ladder
Speed racers, traffic, running laps, trains, scribbling left and right, tennis, bowling, clapping, waving flags, vacuums, lawn mowers, tunnels, pushing strollers, building roads, shakers, swordplay	<b>Dynamic Horizontal</b> 	Balls, marbles, level blocks for making roads, ribbons, wooden rings, rain gutters, clotheslines and clothespins, streamers, wires, strings, beads, half-pipes, elastics	logs, trenches in the sand, branches and palm fronds, pliable branches for building tunnels, sand and streams, timothy hay, flat rocks or ice chunks for launching, chestnuts, waste apples	Logs, hula hoops, culvert pipes, shallow ditches, planks, 4x4's, curbs, stepping stones, rain gutters, concrete forms, balls & bottles for bowling, parachute, shopping cart, skateboard, stroller, wheelbarrow, bike, hockey stick, golf club	pipes, wrapping paper tubes, rubber bands, inner tubes, physio bands, bearings, wheels, corrugated roofing	level tables, hardwood floors, long cardboard boxes, fences or pallets for attaching gutters and pipes, preattached horizontal cables or lines, slingshot	Hot wheels, train sets, push toys, abacus, windup toys, ride-on toys, marble run, sports equipment, air hockey table

If your child loves:	(S)He may be exploring	Loose Parts	Natural Loose parts	Large play	Recyclable/ Repurposed	Additional tools/ bases	Commercial Toys/ Gifts
<p>Putting trucks upside down, turning knobs on stereo and appliances, planets, baseball, racetracks, CD's, launching toys that roll, spinning in circles, washing machines</p>	<p><b>Rotation/ Circularity</b></p> 	<p>Jacks, plates, pot lids, wood rings, spools, washers, metal rings, rope, string, lasso, sticks, toilet plungers, paper towel holders, cylindrical blocks, short lengths of pipe, nuts and bolts, screws, martini umbrellas, metal bearings, mixing spoons, whisks, hair rollers, loops of tubing or pipes, serger spools, bobbins, paint roller, hinges</p>	<p>Helicopter pods, swinging vines, star anise, roly pollies, daisies, snowballs, tree rounds with a centre hole, acorns, snail shells, coconut shells, water, stepping stones or stumps arranged in a circle, hills for rolling down</p>	<p>Cylindrical concrete form, plastic culvert pipes, swings, cable spools, round hay bales, freestanding poles and trunks for circling, hula hoop, pop up hamper or tunnel, merry-go-round, barrel, hose reel, Archimedes screw pump</p>	<p>Cylindrical containers, paper tubes, old microwave trays/tracks, bottles, castors, motors, knobs off old appliances, roller blade wheels &amp; bolts, cups, spinners from board games, turn table, round cardboard from frozen pizza, paper plates, bobbins</p>	<p>large round bowls, steel drum, fan, compasses, winch, pottery wheels, lazy susan, rotating organizer, salad spinner, dowels and sticks, hamster wheel, clothes for toy washing machine, drill, screwdriver, auger, mixer, blender</p>	<p>Snap Circuits, Train circuit, gear toys, bead maze, spiral ball run, abacus, Magneatos, tops, toy cement mixer, propeller flyers, skipping rope, water wheel, spirograph, Euler's Disk, Gearation magnets, spin art, rock tumbler</p>
<p>Making holes in things, poking with sticks, putting fingers in holes, arrows and bullets, swords, ice fishing, sewing, earrings, destroying safety gates, putting limbs through bars of railings</p>	<p><b>Going through a boundary</b></p> 	<p>Yarn and plastic needles, birthday candles, dowels, craft sticks, fabric, burlap, mesh, lace, pipe cleaners, oasis, cork, golf tees, toothpicks, match sticks, beads, buttons, chopsticks, keys and locks, bolts and boards with holes, screws, balsa wood, pins, colander, plastic canvas, screening, perforated steel containers, napkin rings, latches, hooks, wiffle ball, artificial plants, floral foam, martini picks, C&amp;C grid, tulle</p>	<p>Feathers, reeds, cattails, stems, sticks in mud, sticks in snow, bark with woodpecker holes, clay, mud, old man's beard, tree slices with drilled holes, cracked rocks, ice and tools, ice and salt, pine tree needles, moss patches, rotting stumps, wood chips, sharks teeth, shells with holes, pumpkin, gourds, perforated limestone, spider webs, sandstone, lotus pods, cork</p>	<p>Lattice, fencing, soil, sand, shovels, picks, hoes, augers, knotty pine boards, milk crates, post hole diggers, peg boards, loosely knit blankets, wine rack, windows, ladders, tunnel, parachute, finish lines, swinging doors, leaf strainer for gutters, milk crates</p>	<p>Pieces of Styrofoam packaging, foam insulation, cardboard boxes, bits of grid wire, chicken wire, tomato cages, bird cages, carpet pieces, paper tubes, straws, bits of discarded shirts with buttons and buttonholes, bubble wrap, wire, twist tiles, rope, elastics, pegboard, industrial waste sheets with holes from punched out objects</p>	<p>Hammer, drill, screwdriver, rubber mallet, tent pegs, tweezers, pliers, hole punches, shape punches, brads, spades, hand drills, weeding tools, dibbers, skewers, nut crackers, stapler, cookie cutter, fork, garlic press, lemon juicer, tracing wheel</p>	<p>Honey Bee Tree game, Kerplunk, peg stackers, hammer and peg set, weaving loom, Lite-Brite, Mr. Potato Head, lacing toys, rug hooking kit, stretchy mouse and cheese toy</p>
<p>Drawing around the edge of paper, walking the perimeter of a playground or building, tracing, winding string around objects, tying knots, walking over or around obstacles, bracelets and necklaces, weaving, finger knitting</p>	<p><b>Going around a boundary</b></p> 	<p>String, tape, marbles, tubes, spools, ribbons, cups, strings of beads, ropes, wire, popsicle sticks, pipe cleaners, elastics, blocks for building bridges and walls, blue rocks or fabric for mote-making, chains, chalk, gears and belts, floral tape, measuring tape, metal "bendy snake," C&amp;C grid</p>	<p>twigs, stumps, stepping stones, stepping stumps, roots, ivy, vines, creepers, hemp, branches, small trees, antlers, pine cones, ground pine, roots, driftwood, sand and water for motes, whelk egg casing, seaweed</p>	<p>Pylons, cable spools, freestanding poles and trunks for circling, hula hoop, merry-go-round, barrel, tetherball, bridges, balance beam, trees, banks and boulders for circumnavigating, bungee cords, thick ropes</p>	<p>Paper towel tubes, chicken wire, dye-sub printer ribbon, rubber bands, pantyhose or balloons cut into rings, flexible tubing, dryer vent hose, dish drying (peg) rack, necklace and ring holders</p>	<p>peg board or nail board, loom, clusters of trees, poles or columns, hedgerows, winches and pulleys, hat tree, peg racks</p>	<p>Spirograph, stencils, string art set, circuit sets, maze toys, yo-yo, string top, diablo, friendship bracelet kits, weaving kits, plush snake, race car track, slinky, Plinko board</p>

If your child loves:	(S)He may be exploring	Loose Parts	Natural Loose parts	Large play	Recyclable/ Repurposed	Additional tools/ bases	Commercial Toys/ Gifts
<p>Having hands full of objects, full pockets, filling and dumping, dump trucks, bags, shopping carts, wheelbarrows</p>	<p><b>Transporting</b></p> 	<p>Glass gems, beads, pompoms, marbles, tiles, clothes pins, nuts and bolts, washers, cotton balls, ball bearings, magnets, pails, bags, baskets, tins, fanny pack, containers, backpack, bindle stick, plastic counters, tiddlywinks, popsicle sticks, sponges, erasers, buttons, spools, dice, chains, felt balls, cotton swabs, Styrofoam shapes, confetti, foam craft shapes, figurines, caps</p>	<p>Wood pieces, tree cookies, seeds, acorns, rocks, shells, leaves, pine cones, crab apples, beans, wood chips, driftwood, sand, flowers, dirt, gravel, fruits, rice, peach pits, cherry pits, deer corn, feathers, seed pods, sticks, hollowed coconut shells, sticks, branches, natural woven baskets</p>	<p>Wheelbarrow, yard cart, barrel, shopping cart, large backpack, sack, wagon, sled, stroller, laundry basket, trolleys, dollies, carts, sled, stroller, ride-on toys, cardboard box</p>	<p>Plastic containers, buckets, cardboard boxes, Easter baskets, reusable grocery bags, milk jugs, milk crates, used purses, cloth sacks, corks, rubber bands, bread ties, caps, corks</p>	<p>Scoops, tongs, funnel, shovel, spade, scoops, tool belt, clips, pulleys, clothesline, carabiners, hooks, skateboards, felt pads for furniture</p>	<p>Hungry Hippos, toy cargo vehicles, diggers, dump trucks, Trunki, lunch boxes, back pack, mini shopping cart, mini wheelbarrow, wagon, ride-on toy with storage, bike basket, mini figures, toy garage with elevator, toy boats</p>
<p>Putting toys in a row, arranging food on a plate, parking toy cars, sorting, sequencing by size, arranging furniture, straightening rows of shoes, stacking books</p>	<p><b>Ordering/ Positioning</b></p> 	<p>Dominoes, birthday candles, magnets, buttons, popsicle sticks, pompoms, spools, beads, clothes pins, match sticks, checkers, poker chips, dice, chains, books, playing cards, washers, napkin rings, hex nuts, glass gems, tiddlywinks, paint stirrers, dowels, tiles, wooden cubes, graph paper, shoes, moulding corners, tile spacers, wooden geometric shapes</p>	<p>Smooth rocks, slate, sticks, logs, tree slices, stumps, acorns, beans, seeds, pods, flat leaves, crab apples, pine cones, dry bones, shells, coconut halves, snowballs, ice cubes, kindling, branches for "planting" in rows</p>	<p>Large hollow blocks, crates, cable spools, pallets, bricks, cardboard boxes, furniture, ladders, barrels, branches, tires, logs, cords of wood, stepping stones, Twister</p>	<p>Bread bag clips, cups, nesting cups, leftover kitchen/bath tiles, taped up boxes, empty bottles, sensory bottles, cardboard tubes, K-cups, solo cups, tissue boxes, paint swatches, plastic subfloor or silicone pyramid mat (hole side up)</p>	<p>Mirrors, empty frames, tray with ledge, flat bottomed cake pans, shallow boxes, ice cube trays, light box, yard stick, muffin tins, T-square, level, ruler, equal arm scales, plumbline, geometry set</p>	<p>Snap Circuits, Froebel gift sets, tangrams, Lego, Jenga, geometric shape builders, inset puzzles, wooden peg board toys, mosaic kits, bowling set, nesting dolls, Citiblocs, Katamino blocks, Kapla, KEVA, Rush Hour game, dinky cars, parking garage</p>
<p>Makeovers, body paint, fashion dolls, fantasy, mermaids, robots, shape shifters, werewolves, costumes, mixing media, decorating, drawing on oneself, weather and sky, cooking, intentional mess making</p>	<p><b>Transforming</b></p> 	<p>scarves, clothes pins, hair rollers, string, yarn, ribbons, wire, mardi gras beads, pipes, chicken wire, beads, gems, pins, sequins, buttons, picture frames, paint chip cards, bingo chips, prisms, bottles of layered liquids, water beads, shaving cream, body paint, hair rollers, elastics, plaster cloth, ice molds, soap suds, battery operated Christmas lights, googly eyes</p>	<p>water, clay, sand, leaves, mud, flowers, weeds, dried herbs, dry goods, pinecones in water, tree needles, polishing stones, peeling bark, feathers, wood pieces, branches, sticks, vines, rocks for painting, pea gravel, seeds, 'Old Man's Beard', mushrooms</p>	<p>Wood pallets, mud kitchen, landscaping tools, rake, shovel, loose bricks, large cardboard boxes, paint rollers</p>	<p>Styrofoam heads, fabric remnants, boxes, paper tubes, binder clips, wrapping paper, old clothes, jewelry, egg cartons, cheese wax, empty K-cups, bread tabs, elastics, rubber bands, twist ties, fashion dolls or plastic toys with faces/paint removed</p>	<p>Mirrors, Plexiglas, spatulas, rakes, mixing spoons, squeeze bottles, spray bottles, mashers, mortar and pestle, rolling pin, cake pans, light table, plastic bin, water basin, flashlight, magnifying glass</p>	<p>Mr. Potato Head, doll clothes, building sets, Lite Brite, Magnatiles, Light &amp; Color kits, Thermal reactive toys, Plasticine, Creature builders, Rock Tumbler, Color &amp; Cuddle washable toys, shrinky dinks</p>

If your child loves:	(S)He may be exploring	Loose Parts	Natural Loose parts	Large play	Recyclable/ Repurposed	Additional tools/ bases	Commercial Toys/ Gifts
<p>Climbing everything, playing peek-a-boo games, sitting upside down, hanging from bars, looking through holes and transparent objects, standing on toys, crawling under tables, optical illusions, magic</p>	<p><b>Orientation/ Perspective</b></p> 	<p>Mirror tiles, convex and concave mirrors, cardboard tubes, boards, stools and chairs, ropes, washers, prisms, marbles, tiddlywinks, stained glass, small figurines, scale models, empty picture frames, colored acrylic</p>	<p>Hay bales, reflective pools, sand, piles of leaves, large rocks, stumps, logs, coconut halves, snow, sand</p>	<p>Plastic culvert pipe, large concrete form, ladders, stools, rope hammock, lycra sling, jungle gym, tree house, cave, barrel, Twister game, large felled tree, cornstalks, trees for climbing, caves</p>	<p>Telephone books for stacking / climbing, overturned buckets, pvc pipes, CD's, sunglasses, transparent bottles, old maps, coffee cans, dental mirrors, sunglasses, colored lenses, everyday objects cut open or turned inside out.</p>	<p>Mats for laying on, puppet theatre, magnifying glass, compass, loupe, flashlights, shovels, hangers and hooks (for building downwards), overhead projector</p>	<p>Brik-a-blok, Crazy Forts, stilts, microscope, telescope, camera, binoculars, periscope, pop-out tunnel, tent, jungle gym, kaleidoscope, sky projector, 3D puzzles, rocking horse, magic kit, fly-eye replicator, acrylic blocks</p>
<p>Combining multiples of same objects, making finely detailed art, mosaics or collage, making confetti, harvesting, scooping and filling, ball pits, record breaking, unusual weather events, statistics, lists, textiles, layering or polishing, assembly lines, shops, merchandise displays, patterns, making tall towers or deep holes, knitting or crochet</p>	<p><b>Aggregating/ Cumulative effect</b></p> 	<p>Post-its, popsicle sticks, pins, tiles, tiddlywinks, beads, wooden cubes, aggregated magnets, poker chips, stacks of cups, balloons, gems, colored string, beach glass, found objects sorted by color, tissue paper squares, match sticks, dice, hair rollers, sequins, ball-head pins, dried flowers, flat marbles, paper mache, plaster, wax, unifix cubes, math counters</p>	<p>Seeds, shells, shark teeth, pebbles, burdocks, chestnuts, berries, dried flowers, tree rounds, wildflowers (for bouquets), rocks, berries, pinecones, acorns, lotus pods, honeycomb or old wasp nest sand, snow, mud, piles of leaves, sandstone, wool roving for felting, sticks of uniform length, polished stones, beach glass, straw for weaving</p>	<p>stacks of tires or logs, planks, fallen branches, trunks for fort building, facing mirrors, room full of chairs to arrange, trunk cut into rounds, stacks of milk crates, stacks of hula hoops, bricks, pallets</p>	<p>Bottle caps, bread bag clips, backspash tiles, k-cups, corks, CD's (broken for mosaic tiles), toilet paper tubes, marker caps, cheese wax, industrial waste products in large quantities, nuts and bolts, twist ties, anything that can be collected in large amounts</p>	<p>Canvas, grout, clay, cement, measuring tools, timers, mirrors, camera, mesh, gridwire, grid paper, resin or mod podge, glue, mortar and pestle, floral foam, flower press, containers for collecting</p>	<p>Bunchems, Keva / Kapla / Citi blocks, craft kits (Cross stitch, rug hooking, friendship bracelets, etc.), snow-block molds, origami paper, paint by number, rainbow loom, perler beads, wool roving for felting, perler bead sets, Lego, collectables</p>
<p>Shaking banging or tapping objects, musical instruments, crinkly paper, music, rhythm and rhyme, shouting into cups or tubes, animal sounds, noisy appliances</p>	<p><b>Sound</b></p> 	<p>Straws, tubes, funnel, pipes, balloons, buttons, beads, bells, wind chimes, dowels, marbles, tins, pvc pipes, washers, pots and pans, metal utensils, sandpaper blocks, cups, chains, corduroy, cheese grater, bobby pins, glasses of water, paint stir sticks, wrenches, wire whisk, paper plates, comb, brush, bottle of toothpicks, clay pots</p>	<p>Pebbles, tiny shells, beans, bamboo shoots, hollow branches, coconut shells, walnut shells, conch shell with the apex cut off, seed pods, hollow gourds, blade of grass (hold between thumbs and blow for whistle effect), driftwood, crickets</p>	<p>Hollow logs, garbage cans, oil buckets, fence posts and sticks, echoey stairwells, hula hoop, skipping rope, pogo stick, yoga ball, 2 x 4's made into a giant xylophone, large garbage bins, corrugated roofing</p>	<p>bottle caps, plastic easter eggs (for shakers), rubber bands, pipes, cardboard tubes, corrugated materials, plastic water bottles, mason jar lids, pie plates, vacuum cleaner tubing, plastic buckets, tennis ball cans, yogurt containers, bubble wrap, gloves with washers and buttons attached to the fingers, metal measuring tape</p>	<p>Earmuffs (for other children), audio recorders, microphone, megaphone, stethoscope, speakers, computer or tablet</p>	<p>Zube Tube, musical instruments, metal slinky, rainstick, Makey Makey, slide whistle, Euler's Disk, gong, percussion toys from around the world, noisemakers, Boomwhackers</p>

**About this chart:** A schema is a repeated pattern of behavior a child employs in order to explore and learn about his or her environment. The lines between schemas are not always clearly defined. A child may exhibit an interest in one dominant schema or many schemas at the same time. One schema may be connected with another. A dynamic horizontal schema may grow into an interest in trajectory or transporting, for example. Going through a barrier and enclosing often go hand-in-hand as well. Positioning may be a sub category of transforming, or vice versa. The chart is not intended to limit materials, but rather to illuminate an educated guess as to which materials a particular child might be drawn to during open-ended play.

The method in which the materials are presented may influence a child's interest. Deeper engagement can often be garnered by setting up a provocation to play which combines loose parts conducive to a child's schematic interest with other items related to a child's thematic interests.

*Example:* trajectory schema + interest in monkeys >  
boards + logs + toy monkey + tree = monkey catapults = hours of experimentation

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#### **Internet Resources:**

**The Theory of Loose Parts, An important principle for design methodology.** *Simon Nicholson* 1972, Vol. 4, No. 2:  
<http://jil.lboro.ac.uk/ojs/index.php/SDEC/article/view/1204>

**Schemas in Children's Play, Clare Caro 8/8/2012**

<http://www.nature-play.co.uk/blog/schemas-in-childrens-play>

**Sand and Water Tables, Tom Bedard**

<http://tomsensori.blogspot.ca/>

#### **Facebook Groups**

<https://www.facebook.com/groups/Loosepartsandintelligentplaythings> (Or search "Loose Parts and Intelligent Playthings" on Facebook)

<https://www.facebook.com/groups/386341941392735/?fref=nf> (Or search "Schemas Discussion Group" on Facebook)

#### **Books:**

*Loose Parts: Inspiring Play in Young Children*, Lisa Daly, Miriam Beloglovsky, Jenna Daly, 2014. Redleaf Press.

*Loose Parts II: Inspiring Play with Infants and Toddlers*, Lisa Daly, Miriam Beloglovsky, Jenna Daly, 2016. Redleaf Press.

*Threads of Thinking: Schemas and Young Children's Learning*, Cathy Nutbrown, 2011. SAGE Publications Ltd.

*Getting Started with Schemas*, Nikolien Van Wijk, 2009. The New Zealand Playcentre Federation

*Extending Thought in Young Children*, Chris Athey, 2007. SAGE Publications Ltd.