

Play-Based Learning Observation Sheet

(New Zealand Curriculum)

Play Observed:		Date:		Time:		
		Children Present:				
Notice	What I Noticed:	What I Hear (Student Voice):				
Recognise	Schema/Urges Observed (circle/highlight)					
	Transporting	Gathering	Construction	Deconstruction	Trajectory	
	Enclosure	Enveloping	Connecting	Posting	Ordering/ Patterning	Key Competencies Observed (circle/highlight)
	Rotation	Orientation	Transformation	Climbing/ Jumping	Digging/ Burying	
	Playing with water	Running/Chasing	Playing with fire	Families	Relating to Others	
	Participating & Contributing					Managing Self
	NZC Learning Areas Observed (circle/highlight)					
	Science		The Arts		Social Sciences	Technology
	English		Health & PE		Mathematics	
	School Values (please insert):					



Play-Based Learning Observation Sheet

(New Zealand Curriculum)

Respond	Possible Planned Responses (teacher notes):

The Role of the Teacher: Developing Science Literacy

Science Curriculum Level 1 & 2

Nature of Science

Predict, test (out), hypothesis/hypothesise, change, question, explain/explanation, investigate, experiment/explore, model, understand, communicate, participate, contribute, issues, theory/theories, collect/collecting, idea(s), method, discuss

Living World

- Life Processes:* Living needs (eg food, water, shelter, warmth/cooling), food chain, predators, prey, habitat (water, land, air), bacteria, organisms, fungi, conservation, environment,
- Ecology:* Parts of living creatures (eg antennae, thorax, abdomen, tentacles, whiskers), endangered, native, endemic/introduced, camouflage, life cycle, defense system/protection, metamorphosis, pollination, germination, sprout/seeding, seeds, plant structure (leaf, stem, roots), photosynthesis
- Evolution:* Insect, reptile, arachnid, mammal, amphibian, marine etc, species, conifers, cones, spores, mosses, ferns, conifers, evergreens, deciduous, broadleaf, fossilisation, extinct, mummified

Material World

Observe, describe, compare/comparison, physical change, chemical change, materials, mix, heated, cooled, liquid, solid, gas, melt, freeze, boil, condense, evaporate, react/reaction, dissolve, use of (materials), compounds, mixtures, solutions, soluble, acid, alkali, atoms, catalyst, density, distill, metal, shiny, ductile, oxidation

Plastics, biodegradable, waterproof, malleable, bend, break, compostable, translucent, opaque, brittle, soft

Physical World

- Movement/Forces:* accelerate/acceleration, deceleration, speed, velocity, friction, surface, energy, motion, force, gravity, push/pull, lever, direction, strength, mass, equilibrium, tension, elastic, torque, drag, electromagnetic, thrust, momentum, impulse, power, pressure, kinetic energy, joule, newton, pascal, simple machine, watt, weight

<i>Electricity/ Magnetism:</i>	amp/ampere, battery, capacitor, conductor, diode, alternating current (AC), direct current (DC), electric charge, protons, electrons, circuit, current, electric potential (voltage), inductor, magnetic field, resistor, semi-conductor, static electricity, transformer, transistor, watt, poles (north and south), radiation
<i>Light & Sound:</i>	light wave, sound wave, reflection, refraction, light speed, transparent, opaque, translucent, prisms, light spectrum, wavelength, frequency, vibrate, colour, magnification, amplification, pitch, acoustics, volume, decibels, pitch,
<i>Waves:</i>	mechanical, electromagnetic, transverse, longitudinal, electric/magnetic field, frequency, radio waves, microwaves, infrared, visible light, ultra-violet (eg Hubble Telescope), x-rays, gamma rays,
<i>Heat:</i>	Energy, temperature, joules, calories, expand/expansion, transfer, contract, conduct, thermometer, temperature scales (celcius, fahrenheit, kelvin), mercury, freezing, boiling, change,
<i>Simple patterns in Physical Phenomena:</i>	change, patterns, similar, like, different, laws of physics (eg motion, theory of matter, relativity etc)

Planet Earth & Beyond

<i>Earth Systems:</i>	Melting, evaporation, erosion, soil, clay, gravel, sand, bedrock, cave, ablation, delta, earthquake, earth's core, earth's crust, fault, fossil, glacier, ice age, igneous rock, magma, lava, mantle, metamorphic rock, mineral, mountain, ocean tide, tectonic plates, relief, ridges, rift, rock, sediment, topography, volcano, geology, transpiration, sublimation (water cycle), precipitation, atmosphere, seasons, weather systems, clouds (names of these e.g. cirrus, cumulus etc), meteorology, desert, tides, tundra, grasslands, savanna, rainforests
<i>Interacting Systems:</i>	disasters (e.g. tsunami, earthquake, eruption, tornado/hurricane/typhoon), climate change, pollution, environment, erosion, dams (redirection of water, flooding, collection of water), ecosystems, global warming, food chains, water cycles, renewable energy (hydro/geothermal/solar/wind power).
<i>Astronomical Systems:</i>	atmosphere, seasons, orbit, planet, satellite, solar system, telescope universe, eclipse, lunar, solar, heat, light, gravity, ocean tides, shade, shadows,

Schema in Children's Play



Action Focused Schema		Climbing
		Jumping
		Tumbling and wrestling
		Tug of war
		Running and chasing
		Digging and Burying
		Gathering
		Connection
		Posting
		Patterning and ordering
		Orientation
		Enveloping
		Rotation
		Trajectory
		Transporting
Thinking + Action Focused Schema		Playing with Fire
		Playing with Water
		Transformation
		Enclosure
		Deconstruction
		Construction
		Families