

# Carnegie Mellon University Children's School

## Continuum of Developmental Objectives

**1. Self-Esteem & Independence** - encouraging each child's growing self concept and confidence, as well as increasingly independent self regulation and self care.

**Anti-Bias Goal #1 Identity** – demonstrate self-awareness, confidence, family pride, and positive social identities.

**Anti-Bias Goal #2 Diversity** – express comfort and joy with human diversity; accurate language for human differences, and deep, caring human connections.

### A. SELF CONCEPT

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
describe self in concrete/physical ways (age, clothes, body parts, etc.)	describe self in terms of abilities, activities (strength, favorite centers)	describe standard physical characteristics (hair, eyes, etc.) and accomplishments (can read, play piano)
note others' features and identities	compare & contrast others' features with respect	compare & contrast others' features with respect
describe own identities	include social identities	accept identities as stable characteristics
identify family members understand family structure and roles	describe family traditions role play re: family and community	describe immediate culture (Pgh, neighborhood, religious community)
accept self and diverse others	accept self and diverse others	accept self and diverse others

**Democratic Life Skills #4** - accept differing human qualities in others.

### B. SELF CONFIDENCE

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
separate from parent comfortably		
show pride/confidence in abilities & identities	show pride/confidence in abilities & identities	show pride/confidence in abilities & identities
risk trying new things & solving problems	risk trying new things & solving problems	risk trying new things & solving problems
share experiences as they happen at school	share verbally with teachers & peers	share accomplishments with group
choose varied activities with supervision	choose varied activities with guidance	choose varied activities independently
do classroom jobs with supervision	do classroom jobs with guidance	do classroom jobs independently
contribute to shared community	contribute to shared community	contribute to shared community

**C. SELF REGULATION**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
manage waiting patiently identify basic emotions	manage waiting patiently describe basic emotions	manage waiting patiently describe complex emotions & causes
regulate emotions	regulate emotions control impulses	regulate emotions
use calming strategies	empathize with others use relaxation strategies	empathize with others use emotion regulation strategies

*Democratic Life Skills #2 - express strong emotions in non-hurting ways.*

**D. SELF CARE**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
ask for help appropriately	ask for help appropriately	ask for help appropriately
be independent for self-care wash and dry hands regular toileting	be independent for self-care change clothes	be independent for self-care zip, tie, button, snap
follow routine for personal belongings hang up coat & backpack	choose appropriate clothes for weather and activity	put on gloves
feed self use utensils manage meal cleanup	put on coat, hat put on mittens put on shoes, boots fill backpack	cut with knife wash tables
	open lunch box handle water bottle open door with handle	

**2. Interaction & Cooperation** - promoting children's social skills for effective adjustment to school, group participation, classroom citizenship, and peer interactions.

**A. ADJUSTMENT TO SCHOOL**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
follow daily routine manage routine transitions with help	follow simple weekly routine manage routine transitions	follow more detailed weekly routine manage transitions with less structure and help
cooperate with teacher respect adult authority use basic manners		
follow basic rules respond to correction	apply rules situationally	follow more complex rules (e.g., conditionals)
obey basic signs follow 2-3 commands in sequence (e.g., blocks, art project, finger play) persist with simple task with guidance	follow visual procedures reapply directions in other situations independently persist with small task to completion	use diverse visual cues follow complex directions (verbal and concrete sample) explain directions stay on task independ.

**B. GROUP PARTICIPATION**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
understand role in and contribution to group engage with group appropriately for a short time attend for 10 minutes actively participate follow simple group directions respect group activity and materials self-regulate well when not participating	understand role in and contribution to group engage in a longer group time with more need to shift attention attend for 15 minutes actively participate follow group direction that is primarily verbal respect group activity and materials self-regulate well when not participating	understand role in and contribution to group engage in a long group disc. with multiple contributors attend for 20+ minutes actively participate follow more complex group direction respect group activity and materials self-regulate well when not participating

*Democratic Life Skills #1 - find acceptance as a member of the group and as a worthy individual.*

### C. CLASSROOM CITIZENSHIP

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
link actions to consequences respect personal & spatial boundaries share / take turns use kind words show helpfulness help clean up toys	link actions to consequences respect personal & spatial boundaries use table manners use table talk push in chairs clean up independently	link actions to consequences respect personal & spatial boundaries interact respectfully with visitors  get & put away supplies
care for school and natural environment use materials appropriately	care for school and natural environment use materials appropriately	care for school and natural environment use materials appropriately

### D. PEER INTERACTIONS

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
play in parallel	enter play groups play cooperatively with diverse playmates	synchronize with others do cooperative tasks and group projects
form relationships respect differences respect rights & feelings	form relationships respect differences respect rights & feelings	form peer relationships respect differences respect rights, feelings and belongings
stand up for rights	deal with hurt feelings (own and others’) learn not to tattle vs. telling key info understand fairness	respond well to winning and losing  stand up for others’ rights
seek adult help when needed	take other’s perspective use words to resolve conflict with teacher guidance	generate alternate perspectives negotiate and compromise

**Anti-Bias Goal #3 Justice** – recognize unfairness, have language to describe unfairness, and understand that unfairness hurts.

**Anti-Bias Goal #4 Action** – demonstrate empowerment and the skills to act, with others or alone, against prejudice and/or discrimination.

**Democratic Life Skills #3** - solve problems creatively—independently and in cooperation with others.

**Democratic Life Skills #5** - think intelligently and ethically.

**3. Communication** - facilitating comprehension and expression skills beginning with oral language (listening & speaking) and progressing to written language (reading & writing).

### A. LISTENING

3 ->	4 ->	5 ->
<b>Story Listening</b>		
enjoy books with pictures (few words/pict) enjoy silly stories listen to recorded story  recall main idea relate story to own exp.  fill in missing words identify missing object from set of 4 or class identify missing part of picture	listen attentively to story identify characters ask questions  recall plot in order (literal events) recall small details  fill in missing actions in stories	predict next events  listen when peers read  listen for meaning and answer comprehension questions draw conclusions  use more abstraction in what's missing
<b>Story Telling</b>		
retell 2 or more facts from story read 2 times  make up stories	retell story in own words identify beginning, middle, end  use expressive language and sounds  create simple story (beginning, middle, end)	retells in order with details borrowed stories (new twist on an old favorite)  tell original story use descriptive words illustrate/write own books use standard story frame (once upon a time)
<b>Story Analysis</b>		
understand simple moral	real vs. imaginary identify characters identify setting  ask what if questions predict outcomes  identify simple moral	analyze characters analyze setting analyze author tone  discuss cause/effect  compare/contrast books by same author, same story by different authors apply theme or moral

**B. SPEAKING**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
<b>Phonetics</b>		
70-80% intelligible all vowels some consonants simple rhyming	100% intelligible  vary intensity & tone of voice	100% intelligible some blends (tr, bl, pr, gr, ng) rhyme words
<b>Vocabulary</b>		
200-1000 words object naming focus on literal meaning	> 1000 words	> 1000 words adjectives consider implied & double meaning concrete metaphor concrete simile
<b>Grammar</b>		
simple sentences 3 or more words	complete sentences 4 or more words prepositions, plurals, some past tense	5 or more words pronouns
<b>Oral Expression</b>		
recite finger plays/songs	sing songs with verses	share/sing on video
use eye contact convey simple ideas ask why questions	convey more complex ideas ask who, what, where, when, how questions	discuss in group speak to a group ask meaning of words distinguish questions from statements
use body language	use words to express feelings	express through puppets, dramatic play, art
tell about experiences answer questions participate in conversation	explain events role play a situation converse with peers	give simple verbal directions explain 1-2 step proc. e.g., computer use tell jokes / riddles participate in a group play

### C. PRE-READING / READING

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
<p><b>Pretend Reading</b>            hold book right-side up            and tell made-up story            to peers</p> <p>turn pages correct            direction</p>	<p>tell own story to match            pictures (explaining the            pictures)</p>	<p>follow left to right            progression            point to individual            words</p> <p>memorize story to            "read" it to others            change voice to identify            characters</p> <p>"read" standard            greetings, daily diary,            etc.</p> <p>recognize environmental            print</p>
<p><b>Sounds &amp; Symbols</b>            recognize name in print</p> <p>identify environmental            sounds</p> <p>exposed to A-Z (upper)</p> <p>identify simple rhyming            words</p>	<p>recognize names of            children in group</p> <p>recognize A-Z (upper)            recognize some            beginning sounds            recognize small sight            words</p>	<p>find name on list</p> <p>understand sound-letter-            word-sentence</p> <p>recognize a-z (lower)            recognize some sight            words            recognize some ending            sounds            recognize some blends            (sh, ch, etc.)            list words beginning with            letter</p> <p>play with rhyming words</p>
<p><b>Print Formats</b>            standard text</p>	<p>pictographs            maps            charts            calendar</p>	<p>bar graphs            title page            table of contents            index            dictionary</p> <p>find print resources in            classroom</p>

**D. PRE-WRITING / WRITING**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
<b>Letter Recognition/Formation</b>		
scribble to pretend write trace letters begin to form upper case (letters in name)	print first name write upper case copy preprinted words	print full name write lower case ask for help if needed
<b>Writing Format</b>		
	know top to bottom	know left to right use lines understand chapter format  some punctuation, capitalization  compare/contrast formats (journal, letter, invitation, signs, etc.)
<b>Writing to Communicate</b>		
dictate story pretend write with scribbles	write through pictures and preprinted words	write words phonetically (invented spelling) associate spoken and written word ask for spelling make books / signs



**4. Discovery & Exploration** - fostering a positive attitude toward learning through scientific and mathematical inquiry with varied materials to build strong concepts related to diverse themes.

**A. APPROACH TO LEARNING**

(self-directed, engaged learning with a growth mindset)

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
positive attitude curiosity explores new activities indoors and outdoors		
age-appropriate attention	selective attention and focus/concentration	selective attention and focus/concentration
self-motivation / initiative	complete task with persistence	plan for task (e.g., gather materials)
accepting of mistakes as learning resourceful	aim for doing work with quality, care & timeliness	seek more than one solution, multiple possibilities

**B. SCIENTIFIC THINKING**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
<b>Collecting &amp; Observing</b>		
aware of all 5 senses describe basic features	describe characteristics and behaviors of present and imagined objects	more complex description
collect and sort objects compare and contrast basic dimensions count objects	classify and order added variation and # of dimensions estimate number measure with units create balance	use standard measure weigh objects
use observation tools magnifying glass, binoculars, etc. associate objects (e.g., bird with nest)	record observations with drawing, photo, camera or computer	use standard symbols use graphs
<b>Geographic Thinking:</b> recognize map	identify land and water relate personal experience to map	use simple map / globe relate to physical characteristics of local environment learn about city, state, country distinctions

<b>Questioning &amp; Predicting:</b>		
sense of wonder ask questions	use who, what, why, where, and when	
apply info from one situation to another	make theme-related connections	make connections across themes
predict cause and effect	seek answers through exploration and problem solving teacher-directed experiments	explains cause / effect relationships pose experiments to pursue
<b>Explaining &amp; Reporting</b>		
use science terms in context	base answers on observations	base answers on explorations
offer explanations / propose answers	increasing complexity and use of evidence	propose alternate theories

**C. MATHEMATICAL THINKING**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
<b>NUMBER</b>		
rote count 1-10	1-20	1-100, 10-1 backwards
1 to 1 correspondence	1 to 1 corr for 10 items	1 to 1 corr for 30 items
count objects 1-5	1-10	1-30
recognize numerals 1-5	1-10	1-30
	copy numerals 1-10	write numerals 1-30
	estimate 1-10	estimate 1-30
first, last	beginning, middle, end	ordinals (1st->10th) fractions (whole/ half/thirds/quarters)
<b>OPERATIONS</b>		
match equal sets to sample of 1-4 objects		understand quantity of a number add & subtract 1-10 with concrete materials (sets) and symbols skip counting (2s, 5s, 10s)
<b>SPACE (Both 2- and 3-dimensional understanding)</b>		
<b>Lines</b>		
line	straight vs. curve	zigzag, scallop thick/thin
corner in room	corner of simple shape	corner of complex shape
<b>Shapes</b>		
recognize & name (prototypes & instances) circle, square, triangle	draw prototypes	draw/trace/cut varied instances combine & break bounds
	recognize & name rectangle	draw prototypes
		recognize & name oval, diamond, trapezoid, hexagon plus 3 dimensional shapes, such as sphere, cube, pyramid
<b>Position</b>		
in, into, inside, through	between	across
on, next, beside		near, far, beyond
out, outside, around		"hotter", "colder"
top, over, up	above	
bottom, under, down	below	
front, back		left, right

<b>PATTERNS</b>		
recognize bilateral	create bilateral	use combined shapes
3 cycles of ABAB	recognize radial	create radial
	3 cycles of ABC	5 cycles of ABCDE
		combined media
	find simple patterns in environment	combined patterns
		find complex patterns
<b>CLASSIFYING &amp; DATA ANALYSIS</b>		
<b>Comparing Objects</b>		
same, different		
more	similar, alike	equal (=), not-equal
bigger, smaller	most	less, fewer
opposites [hot-cold, on-off, light-dark, day-night]	biggest, smallest	greater than, less than (>, <)
<b>Categorizing Objects</b>		
1 attribute sorting	1 or 2 attributes	2 or more attributes
color, shape, size	thickness, number	texture, composition
		pattern, function
		determine "rule" for sort
<b>Ordering Objects (seriation)</b>		
1 attribute - 3 items	1 attribute - 4+ items	1 attribute / both
size (sm, med, lg)	length, number, part/whole	directions / many items
		color (tint & hue), pitch
		volume, tempo, temp.
familiar sequences (story, daily schedule)	sequence 3 events (plus weekly sequence, seasons)	novel story sequences
<b>Graphing</b>		
	read pictograph	read bar graphs (horizontal & vertical)
	make one with help	make graphs on own
		collect data on own
		make comparisons
		check name on chart when completes task

<b>MEASUREMENT</b>		
<b>Length</b> long/short tall/short	longer/shorter taller/shorter  use different forms of measuring (e.g., steps) use ruler/yardstick, etc.	longest/shortest tallest/shortest inch/foot use different forms of measuring (e.g., steps) use ruler/yardstick, etc. horizontal/vertical
<b>Weight &amp; Volume</b> heavy/light	heavier/lighter use a balance  full/empty measure ingredients cups, 1/2, 1/4 T, t (whole and 1/2) quart, gallon	heaviest/lightest tell why one side goes down most/least measure ingredients cups, 1/2, 1/4 T, t (whole and 1/2) quart, gallon choose container of appropriate size
<b>Temperature</b> hot/warm/cold	hotter/colder	hottest/coldest use thermometer to determine warm/cold apply to taste, weather, climates
<b>Speed</b> fast/slow	faster/slower	fastest/slowest motion (people vs. motor) role of food/fuel role of weight and slope in speed
<b>Time</b> today  daily schedule and routines  birthday	yesterday, tomorrow night/day  weekly schedule days of the week monthly calendar cycle of seasons holidays	before/after last week, next week clocks - time in hours and half hours predict time to complete a task (hours - weeks) yearly calendar cycle of holidays
<b>Money</b> coins/bills = money understand simple economics (e.g., play store, etc.)		understand use of money for buying

## D. CONCEPT / FACT LEARNING

- **Retains Age Appropriate Personal Facts** (e.g., name, age, family members, address, phone number)
- **Retains Age Appropriate Common Facts** (colors, shapes, letter & numeral names, etc.)
- **Understands Thematic Concepts and Retains Facts re: Domains of Study, Books Read, Activities & Experiences, etc.**  
(See Unit Guides for specific conceptual content.)

Living & Non-living

Life cycles of Plants & Animals

Dinosaurs

Insects, Birds, Mammals ...

Habitats such as Ocean, Desert, Rainforest ...

Our Bodies

Health

Personal Safety

Ecology & Environment

Nature

Seasons

Air, Water, Rainbows

Color, Light & Shadow

Waves & Sound

Sink & Float

Magnets

Machines & Electricity

Art, Music, Theatre

Senses

Food & Nutrition

Fire Safety

Recycling

Conservation

Weather

Earth & Rocks

Sea

Outer Space

Building & Woodworking

Tools & Inventions

Transportation & Wheels

Pittsburgh, USA, World

**5. Physical Capabilities / Health & Safety** - giving children opportunities to develop small and large motor skills, healthy living habits, and essential safety practices.

**A. SMALL (Fine) MOTOR SKILLS**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
<b>Eye-Hand Coordination</b>		
do 6 piece puzzles stack 5 blocks	do 12 piece puzzles stack 10 blocks build buildings copy small block design	do 30 piece puzzles stack to own height build cities copy large block design
put pegs in holes	string beads use digital technology	
finger paint	represent with paint	detail in painting copy paint design
<b>Tool Use</b>		
cut a line draw with markers	cut outside curves draw/write with pencils	cut inside curves draw/write with crayons use eraser
use paintbrush for paint and glue	wipe edges when painting	sew with large needle use stapler, paper punch, hammer, drill, saw
use basic hand tools in kitchen & MakeShop	greater facility with hand tools basic use of digital tools	greater facility with digital tools
<b>Combined Actions</b>		
simple fingerplays	fingerplays with well- defined movements	more complex fingerplays
clap rhythm	finger counting	snap
	trace inside/outside of simple stencils	trace complex stencils
	tear paper	mold, fold materials

**B. LARGE (Gross) MOTOR SKILLS**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
<b>Legs and Feet</b>		
age-appropriate gait walk forward and back walk a wide beam balance on one foot tiptoe march run jump from 12" height crawl through a tube	walk lines walk narrower beams  march to rhythm gallop, skip hop	walk curves switch direction on beam  march to rhythm w/drum
<b>Arms and Hands</b>		
throw/catch beanbag and koosh  roll ball	throw/catch large ball  kick ball	throw/catch small ball throw with direction  roll and kick with direction bounce ball hit ball with bat
<b>Coordinated Movements</b>		
roll sideways singular body moves  negotiate stairs with help  climb slide feet first  pull wagon push and turn buggy ride tricycle	crab walk free body movement to rhythm  use alternate feet on stairs  run simple relays	tumbling (somersaults) body twists jumping jacks toe touches  climb-alternate hands slide-varied positions hang upside down jump rope  run relays with passing



**C. HEALTHY HABITS**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
make healthy food choices with guidance avoid putting non-food objects into mouth	understand “allergy” and manage personal allergies by avoiding triggers	make healthy food choices independently empathize with others’ health issues, allergies
follow handwashing, eating & toileting routines, sneezing & coughing procedure	understand roles of health providers identify good hygiene practices for school and home (e.g., bathing, dental care)	understand the role of germs and use strategies to avoid spreading germs
appropriately dispose of waste	reuse and recycle as appropriate	explain the process and rationale for recycling
make healthy activity choices with supervision	make healthy activity choices with guidance	make healthy activity choices independently

**D. SAFETY PRACTICES**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
obey open/closed signs	obey safety symbols, such as Mr. Yuk	obey traffic symbols, such as walk signs
stay in prescribed space stay with the group as directed	follow safe procedures for walking, stairs, street crossing, carseats, etc. with guidance	follow safe procedures for walking, stairs, street crossing, carseats & bus rules, etc. independently
follow safety directions		
follow playground safety rules with supervision	follow playground safety rules with guidance	follow playground safety rules independently
use age-appropriate tools safely	seek safety equipment, such as goggles, smocks, etc. as needed	
seek help from appropriate sources (e.g., teacher, police officer, firefighter)	follow safety precautions re: strangers	
follow signals & procedures for fire drills and lockdown drills with supervision	follow signals & procedures for fire drills and lockdown drills independently	explain varied safety procedures and help other children follow them

**6. Artistic Expression & Appreciation** - cultivating each child's ability to express ideas and emotions through art, drama, and music and movement, as well as to appreciate the artistic expressions of others.

### A. VISUAL ARTS EXPRESSION

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
explore visual materials basic scribbles, placement, and shapes use varied media	basic designs combining shapes begin to plan and then illustrate generate digital art	pictorial representation participate in group art project express emotion / idea
use imagination to create new combinations or elements in art		
<b>Attributes understood and used in Art:</b>		
<b>Color</b>		
primary	primary/secondary	shades and tints
<b>Size</b>		
big, little long, short	large, small tall, short hi, low	huge, tiny  deep, shallow
<b>Thickness</b>		
	thick, thin	wide, narrow
<b>Composition</b>		
paper, wood, cloth, metal	plastic, cardboard, stone	cork, styrofoam, brick
<b>Texture</b>		
hard, soft	rough, smooth	shiny/dull fluffy/flat

### B. DRAMATIC ARTS EXPRESSION

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
do role play do dramatic play do standard finger plays use felt board / puppets	create new stories enact stories without guidance more cooperative drama	group oriented drama interest in direction / production
use imagination to create new combinations or elements in drama		

**C. MUSIC & MOVEMENT EXPRESSION**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
listen & watch group sing participate in group alter songs use instruments	perform simple songs in front of audience add silly verses	more complex performance
mirror movement	match movement to tempo	use standard rhythms
use imagination to create new combinations or elements in music and movement		

**D. ARTISTIC APPRECIATION**

<u>3 -&gt;</u>	<u>4 -&gt;</u>	<u>5 -&gt;</u>
learn to be an audience pay attention remain quiet clap, etc. respond emotionally and verbally to the art of other children & adults	compare & contrast art forms from different cultures	identify style of music, drama, illustration, etc.