

5-6

7-9

10-12



physical



cognitive



social



emotional

LOCOMOTION



by Lighttruth

Designer Tips:

- Does the design encourage maintaining balance during simple movements?
- Can the design evaluate the quality of movements such as running in place or jumping?
- Can the design help children practise balance and agility through simple activities

P1A

5-6

7-9

10-12



physical



cognitive



social



emotional

LOCOMOTION



by Bruce A Stockwell

Designer Tips:

- Does the design encourage repeating complex movements that require balance and agility?
- Can the design evaluate the quality of movements such as swinging, throwing, or kicking?
- Can the design encourage combining complex movements into a fluid motion?

P1B

5-6

7-9

10-12



physical



cognitive

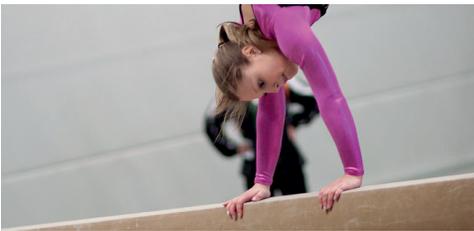


social



emotional

LOCOMOTION



by Wouter Marra

Designer Tips:

- Does the design encourage refining a sequence of complex movements through practise?
- Can the design evaluate how well a sequence of complex movements has been followed?
- Can the design identify specific complex movements within a sequence to practise?

P1c

5-6

7-9

10-12



physical



cognitive

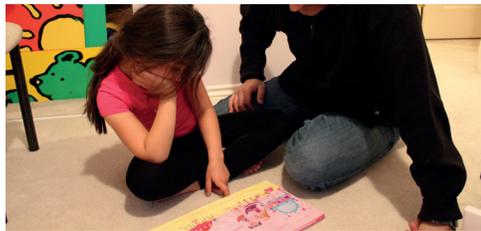


social



emotional

READING



Designer Tips:

- Does text in the design use the simplest language possible?
- Does the design include audio to help children sound words out?
- Can the design recognize and reward successfully reading simple words and sentences?

C4A

5-6

7-9

10-12



physical



cognitive



social



emotional

LOCOMOTION

Children in this age group are practising complex movements requiring balance and agility.

Children can practise this by swimming laps, playing basketball, and rollerblading.

Passing a ball while playing basketball requires maintaining balance to make an accurate pass and passing the ball with enough force to reach the other player.

P1B

5-6

7-9

10-12



physical



cognitive



social



emotional

LOCOMOTION

Children in this age group are practising simple movements requiring balance and agility.

Children can practise this by hopping, running, and rolling.

Hopping requires simple leg movements while maintaining balance.

P1A

5-6

7-9

10-12



physical



cognitive



social



emotional

READING

Children in this age group are practising reading simple words and sentences.

Children can practise this by looking at picture books, sounding out new words, and reading simple sentences with a caregiver.

Sounding out new words with a caregiver's guidance requires recognizing letters and their sounds and combining these sounds together.

C4A

5-6

7-9

10-12



physical



cognitive



social



emotional

LOCOMOTION

Children in this age group are practising sequences of complex movements requiring balance and agility.

Children can practise this by participating in martial arts, gymnastics, and figure skating.

A balance beam routine in gymnastics may involve performing a sequence of flips, cartwheels, and jumps.

P1c

5-6

7-9

10-12



physical



cognitive



social



emotional

READING



by Old Shoe Woman

Designer Tips:

- Does text in the design make use of multi-syllable words or compound sentences?
- Can the design help children practise figuring out the meanings of uncommon words?
- Can the design recognize and reward making sense of new words and sentences?

C4B

5-6

7-9

10-12



physical



cognitive

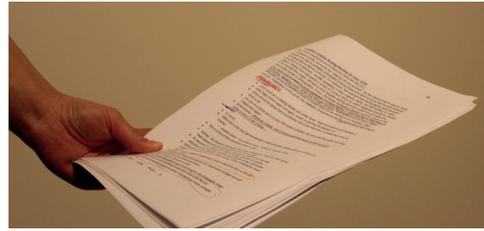


social



emotional

READING



Designer Tips:

- Does text in the design make good use of maturing reading skills? (Is text overly-simplistic?)
- Can the design encourage exploring and making sense of a variety of writing forms?
- Does the design reward a child's reflection on written materials?

C4c

5-6

7-9

10-12



physical



cognitive



social



emotional

INSTRUCTIONS



by chefranden

Designer Tips:

- Are instructions broken up into simple steps?
- Does the design provide repeatable access to the instructions?
- Does the design confirm successful completion of each step?
- Does the design provide additional support when a child does not follow an instruction correctly?

C5A

5-6

7-9

10-12



physical



cognitive



social



emotional

INSTRUCTIONS



Flickr. Author unknown

Designer Tips:

- Are instructions grouped into sets of related instructions?
- Are lists of instructions short enough to be memorized?
- Does the design confirm successful completion of a set of instructions?
- Can the design provide help when a child has difficulty following the steps?

C5B

5-6

7-9

10-12



physical



cognitive



social



emotional

READING

Children in this age group are practising reading complex words, sentences, and paragraphs.

Children can practise this by reading novels, blogs, play scripts, and textbooks.

Reading a script requires understanding complex words and sentences while making sense of a variety of paragraph forms.

C4c

5-6

7-9

10-12



physical



cognitive



social



emotional

READING

Children in this age group are practising reading multi-syllable words and compound sentences.

Children can practise this by reading comic books, short novels, and poems.

Reading a short novel may require making sense of new words and compound sentences in order to understand simple paragraphs.

C4B

5-6

7-9

10-12



physical



cognitive



social



emotional

INSTRUCTIONS

Children in this age group are practising following a sequence of instructions to complete a task on their own.

Children can practise this by getting ready for school, following a simple recipe, and building simple models.

Baking cookies involves following a simple set of instructions such as measuring ingredients, putting them in a bowl, and mixing them.

C5B

5-6

7-9

10-12



physical



cognitive



social



emotional

INSTRUCTIONS

Children in this age group are practicing following simple step-by-step instructions with the help of a caregiver.

Children can practise this by playing simple board games, tying their shoes, and playing connect-the-dots.

Tying shoes with adult supervision involves a child following simple instructions that must be completed in order, one step at a time.

C5A

5-6

7-9

10-12



physical



cognitive



social



emotional

INSTRUCTIONS



Flickr. Author unknown

Designer Tips:

- Can instructions be carried out in different orders?
- Does the design require a child to decide the order in which instructions are completed?
- Can the design help a child understand the outcomes of prioritizing certain instructions over others?

C5c

5-6

7-9

10-12



physical



cognitive

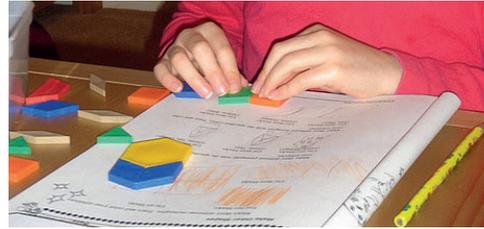


social



emotional

PROBLEM SOLVING



by usedcarspecialist

Designer Tips:

- Does the design demonstrate a problem-solving process for the child to follow?
- Can the design encourage a child to try different approaches to solving a problem?
- Can the design recognize when a child is struggling to solve a problem?

C3A

5-6

7-9

10-12



physical



cognitive



social



emotional

PROBLEM SOLVING



Designer Tips:

- Does the design provide multiple ways for a child to solve a problem?
- Can the design provide different levels of detail to help a child solve a problem?
- Can the design help a child evaluate different problem-solving approaches?

C3B

5-6

7-9

10-12



physical



cognitive

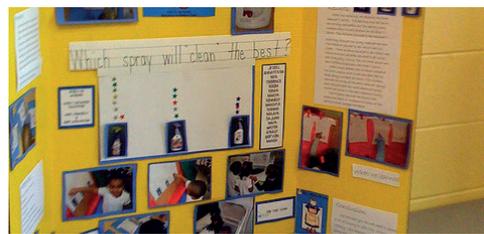


social



emotional

PROBLEM SOLVING



Flickr. Author unknown

Designer Tips:

- Does the design help a child develop independent learning skills?
- Can the design encourage a child to try many different approaches to solve a problem?
- Can the design help a child pick the best solution from potential solutions they've generated?

C3c

5-6

7-9

10-12



physical



cognitive



social



emotional

PROBLEM SOLVING

Children in this age group are practising solving simplified problems provided by a caregiver.

Children can practise this by completing simple puzzles, solving math problems with physical objects, and answering simple riddles.

A child can use their counting skills to solve addition and subtraction problems with the help of blocks.

C3A

5-6

7-9

10-12



physical



cognitive



social



emotional

INSTRUCTIONS

Children in this age group are practising following complex sequences of instructions that involve making decisions when instructions branch.

Children can practise this by preparing a meal, learning a new game, or assembling a complicated model.

Preparing a meal requires a child to choose the order the dishes should be made in, follow the recipe for each dish, and sometimes prepare more than one dish at a time.

C5c

5-6

7-9

10-12



physical



cognitive



social



emotional

PROBLEM SOLVING

Children in this age group are independently practising understanding, evaluating, and solving problems.

Children can practise this by planning a sleepover party, completing a science fair project, and fixing a bicycle.

Completing a science fair project requires a child to choose a topic they are interested in, find information about that topic, and build a demonstration that illustrates the topic.

C3c

5-6

7-9

10-12



physical



cognitive



social



emotional

PROBLEM SOLVING

Children in this age group are practicing understanding, evaluating, and solving problems with support when necessary.

Children can practise this by playing chess, solving written math problems, and solving mystery stories.

Playing chess requires a child to try to make the best move within the rules of the game, and may involve asking for help from an adult.

C3B

5-6

7-9

10-12



physical



cognitive



social



emotional

ATTENTION



Designer Tips:

by Vaughan

- Does the design present a child with only one task to focus on at a time?
- Can the design help a child recognize when they are close to completing a task?
- Can the design help a child practise improving their ability to pay attention?

C1A

5-6

7-9

10-12



physical



cognitive



social



emotional

ATTENTION



Designer Tips:

by heraldpost

- Does the design support easy switching between related tasks?
- Does the design encourage a child to practise individual tasks separately before practising them together?
- Can the design recognize when a child is having difficulty managing two tasks?

C1B

5-6

7-9

10-12



physical



cognitive



social



emotional

ATTENTION



Designer Tips:

by woodleywonderworks

- Does the design encourage prioritization between different tasks?
- Can the design help a child recognize when a task requires more or less attention?
- Can the design help a child understand how to successfully manage their attention to meet their own goals?

C1c

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL EXPRESSION



Designer Tips:

by Ana Fukase

- Does the design encourage children to express their emotions?
- Does the design communicate basic rather than complex emotions?
- Can the design convey emotion in obvious (e.g. through characters) or subtle ways (e.g. through instructions)?

E1A

5-6

7-9

10-12



physical



cognitive



social



emotional

ATTENTION

Children in this age group are practising focusing on a few closely-related tasks at the same time.

Children can practise this by performing a dance routine, riding a bike, and playing dodgeball.

Playing dodgeball requires a child to pay attention to incoming balls while throwing balls at other players.

C1B

5-6

7-9

10-12



physical



cognitive



social



emotional

ATTENTION

Children in this age group are practising focusing on doing one task at a time.

Children can practise this by listening to a teacher, memorizing their phone number, and getting ready for bed.

Getting ready for bed requires a child to focus on several tasks one by one, such as brushing their teeth, washing their face, and brushing their hair.

C1A

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL EXPRESSION

Children in this age group are practicing expressing how they feel.

Children can practise this by storytelling, drawing pictures, and spontaneous dancing.

Drawing pictures allows a child to express their feelings through the colours, shapes, and characters that they draw.

E1A

5-6

7-9

10-12



physical



cognitive



social



emotional

ATTENTION

Children in this age group are practising focusing simultaneously on tasks that vary in difficulty level.

Children can practise this by watching over younger siblings, walking the dog with a friend, and chatting online while doing math homework. Watching over young children may require giving more attention to a younger child while also monitoring the actions of an older child.

C1c

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL EXPRESSION



by climbh2003

Designer Tips:

- Does the design encourage sharing emotions with friends and family?
- Does the design communicate emotions following accepted social conventions?
- Does the design recognize and respond when a child breaks social convention (e.g. detecting swearing in chat rooms)?

E1B

5-6

7-9

10-12



physical



cognitive

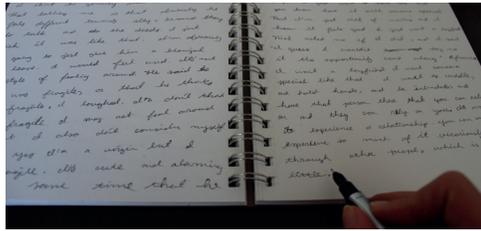


social



emotional

EMOTIONAL EXPRESSION



Designer Tips:

- Does the design encourage a child to use different skills to express their emotions?
- Does the design encourage a child to reflect on their emotions?
- Does the design support sharing expressed emotions with others appropriately?

E1c

5-6

7-9

10-12



physical



cognitive



social



emotional

UNDERSTANDING & EMPATHY



by hubertk

Designer Tips:

- Do characters, stories, or instructions in the design express age-appropriate emotions?
- Does the design encourage a child to recognize and express their feelings?
- Does the design help a child to recognize other people's feelings?

E3A

5-6

7-9

10-12



physical



cognitive



social



emotional

UNDERSTANDING & EMPATHY



by McBeth

Designer Tips:

- Does the design help a child interpret subtle emotional cues?
- Does the design help a child make sense of conflicting cues?
- Can the design suggest different ways of making sense of conflicting emotional cues?

E3B

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL EXPRESSION

Children in this age group are practicing using skills from other parts of their lives to help express their emotions.

Children can practise this by playing instruments, creating and exhibiting art, and writing in diaries.

Writing in a diary encourages a child to reflect on their thoughts and feelings and express them using an intimate and reflective voice.

E1c

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL EXPRESSION

Children in this age group are practicing expressing emotions according to social convention.

Children can practise this by acting in a play, sharing feelings with friends, and having emotional discussions in class.

Acting in a play encourages a child to understand the emotions of their character and act out these emotions so that others can understand them.

E1B

5-6

7-9

10-12



physical



cognitive



social



emotional

UNDERSTANDING & EMPATHY

Children in this age group are practising interpreting other's feelings and are starting to make sense of non-verbal or conflicting emotional cues.

Children can practising this by demonstrating sportsmanship, comforting a friend who looks lonely, and avoiding an upset caregiver.

Comforting a friend who looks lonely requires a child to recognize subtle signs of loneliness in their friend's behavior, facial expression, and body language.

E3B

5-6

7-9

10-12



physical



cognitive



social



emotional

UNDERSTANDING & EMPATHY

Children in this age group are interpreting their own feelings and are becoming aware of other people's feelings.

Children can practise this by playing house, sharing toys with friends, and talking about characters in a story.

Playing house with other children encourages a child to practise expressing their own feelings and recognize other children's feelings.

E3A

5-6

7-9

10-12



physical



cognitive



social



emotional

LOCOMOTION

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Designer Tips:

- Does using the design involve a single whole body movement?
- Can the design react to movements such as skipping, dance steps or throwing?
- Does using the design encourage perfecting a complex, single movement through practise?

5-6

7-9

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physical



cognitive



social



emotional

LOCOMOTION

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5-6

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physical



cognitive



social



emotional

LOCOMOTION

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5-6

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physical



cognitive



social



emotional

LOCOMOTION

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Designer Tips:

- Does using the design involve a single whole body movement?
- Can the design react to movements such as skipping, dance steps or throwing?
- Does using the design encourage perfecting a complex, single movement through practise?

5-6

7-9

10-12



physical



cognitive



social



emotional

LOCOMOTION

Children in this age group are practising complex movements requiring balance and agility.

Children can practise this by swimming laps, playing baseball, and playing soccer.

Passing a ball while playing soccer requires maintaining balance to make an accurate pass and avoid falling over.

5-6

7-9

10-12



physical



cognitive



social



emotional

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Children in this age group are practising complex movements requiring balance and agility.

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5-6

7-9

10-12



physical



cognitive



social



emotional

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5-6

7-9

10-12



physical



cognitive



social



emotional

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Passing a ball while playing soccer requires maintaining balance to make an accurate pass and avoid falling over.

5-6

7-9

10-12



physical



cognitive



social



emotional

UNDERSTANDING & EMPATHY



by Sheryl's Boys

Designer Tips:

- Does the design encourage a child to empathize with another person's feelings?
- Does the design help a child learn to negotiate and compromise?
- Can the design highlight the benefits of empathizing and compromising with others?

E3c

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL REGULATION



Designer Tips:

- Does the design help a child identify strong emotions that they are feeling?
- Can the design help a child learn to express strong emotions appropriately?
- Can the design help a child practise strategies for coping with strong emotions?

E2A

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL REGULATION



by jeffreylcohen

Designer Tips:

- Does the design help a child recognize that different social situations may require different types of emotional expression?
- Can the design show different ways of managing emotions in a variety of social situations?
- Can the design help a child understand why different types of emotional expression are useful in different social situations?

E2B

5-6

7-9

10-12



physical



cognitive



social



emotional

EMOTIONAL REGULATION



by woodleywonderworks

Designer Tips:

- Does the design help a child recognize situations where others are not managing their emotions appropriately?
- Can the design suggest strategies for responding to inappropriate emotional expressions?
- Can the design help a child recognize their authentic feelings in an emotionally charged situation?

E2c

5-6**7-9****10-12**

physical



cognitive



social



emotional

EMOTIONAL REGULATION

Children in this age group are practising coping with strong emotions.

Children can practise this by naming a strong emotion they are feeling, taking deep breaths when they are upset, and waiting to play with a favourite toy.

Naming a strong emotion requires a child to identify what they are feeling and encourages them to think about why they are feeling that emotion.

E2A**5-6****7-9****10-12**

physical



cognitive



social



emotional

UNDERSTANDING & EMPATHY

Children in this age group are practising making decisions based on their emotions while accounting for the emotions of others.

Children can practise this by deciding which movie to watch at a party, teaching a board game to younger siblings, and sharing a favourite present with a group of friends.

Deciding which movie to watch at a party requires each child to negotiate with their friends and compromise from a list of their favourite movies.

E3c**5-6****7-9****10-12**

physical



cognitive



social



emotional

EMOTIONAL REGULATION

Children in this age group are practising managing strong emotions in complex social situations.

Children are practising this by talking to a close friend about things that make them upset at home, keeping calm during a debate exercise at school, and practising good sportsmanship during competitions.

Practising good sportsmanship during a competition requires a child to appropriately handle their emotional response to upsetting comments and behaviours from coaches, parents, team mates, and opponents.

E2c**5-6****7-9****10-12**

physical



cognitive



social



emotional

EMOTIONAL REGULATION

Children in this age group are practising managing strong emotions during group activities.

Children are practicing this by learning appropriate classroom manners, controlling an outburst at a birthday party, and waiting patiently for food at a restaurant.

When a child is not given the attention they want in class, they are expected to manage their frustration differently than they may at home.

E2B

5-6

7-9

10-12



physical



cognitive



social



emotional

GROSS MANIPULATION



by Chris A

Designer Tips:

- Does the design encourage practising simple actions that involve a major muscle group?
- Does the design clearly demonstrate simple actions for a child to follow?
- Can the design recognize mistakes in simple actions and encourage correct form?

P3A

5-6

7-9

10-12



physical



cognitive



social



emotional

GROSS MANIPULATION



by courosa

Designer Tips:

- Does the design help a child coordinate multiple movements to complete an action?
- Does the design help a child practise coordinated movements without injuring themselves?
- Can the design demonstrate how different movements combine to carry out a coordinated action?

P3B

5-6

7-9

10-12



physical



cognitive



social



emotional

GROSS MANIPULATION



by Xiaozhuli

Designer Tips:

- Does the design emphasize achieving the same goal through a variety of coordinated movements?
- Can the design help a child increase their accuracy when carrying out coordinated movements?
- Can the design help a child understand how practising basic movements can improve their performance in coordinated movements?

P3c

5-6

7-9

10-12



physical



cognitive



social



emotional

FINE MANIPULATION



by edenpictures

Designer Tips:

- Does the design afford easy grasping, holding, and moving by smaller hands?
- Does the design encourage using fine motor skills instead of large muscle groups?
- Can the design encourage a child to explore a range of precise movements?

P2A

5-6

7-9

10-12



physical



cognitive



social



emotional

GROSS MANIPULATION

Children in this age group are practising activities that involve coordinated movement of large muscle groups.

Children can practise this by jumping on a pogo stick, horseback riding, and rollerblading.

Rollerblading requires a child to coordinate multiple muscle groups in their arms, legs, and torso.

P3B

5-6

7-9

10-12



physical



cognitive



social



emotional

GROSS MANIPULATION

Children in this age group are practising activities that involve moving large muscle groups.

Children can practise this by kicking a ball, throwing and catching, and playing hopscotch.

Kicking a soccer ball requires a child to use their leg muscles to aim at the ball and hit it with force.

P3A

5-6

7-9

10-12



physical



cognitive



social



emotional

FINE MANIPULATION

Children in this age group are practising manipulating objects that require basic coordination of small muscles.

Children can practise this by stacking wooden blocks, shaping modeling clay, and drawing patterns using a pencil.

Stacking wooden blocks requires a child to coordinate their fingers and thumbs in order to pick up and place blocks.

P2A

5-6

7-9

10-12



physical



cognitive



social



emotional

GROSS MANIPULATION

Children in this age group are practising activities that require accurate repeated coordination of large muscle groups.

Children can practise this by hitting a pitched ball, taking shots on goal with a hockey stick, and shooting a target with a dart gun.

Shooting the puck at the goal during hockey practise requires a child to coordinate their upper and lower body while skating.

P3c

5-6

7-9

10-12



physical



cognitive



social



emotional

FINE MANIPULATION



Flickr. Author unknown

Designer Tips:

- Does the design encourage a child to develop several fine movements in coordinated way?
- Can the design show a child the steps involved in completing a complex fine-motor movement?
- Can the design help a child understand subtle differences in complex fine-motor movements?

P2B

5-6

7-9

10-12



physical



cognitive



social



emotional

FINE MANIPULATION



Flickr. Author unknown

Designer Tips:

- Does the design require practise of precise movements before carrying out a task?
- Can the design help a child recover from mistakes in precise movements?
- Can the design teach a child how to perform precise movements accurately?

P2c

5-6

7-9

10-12



physical



cognitive



social



emotional

SELF-ESTEEM



Designer Tips:

- Does the design have a series of single activities that a child can completely successfully?
- Can the design help a child recognize that they have done a good job?
- Can the design help a child recognize when they have improved a skill?

S3A

5-6

7-9

10-12



physical



cognitive



social



emotional

SELF-ESTEEM



by hdes.copeland

Designer Tips:

- Does the design help a child practise the skills needed to participate in a more complicated activity?
- Can the design help a child understand how specific skills relate to a more complicated activity?
- Can the design help a child transfer confidence in a basic skill to confidence in a more complicated activity?

S3B

5-6

7-9

10-12



physical



cognitive



social



emotional

FINE MANIPULATION

Children in this age group are practicing manipulating small and intricate objects that require a variety of complex small-muscle movements.

Children can practise this by doing embroidery, building detailed models, and putting on make-up.

Building a model requires a child to precisely manipulate model parts and construction tools to paint, sand, and glue small kit pieces.

P2c

5-6

7-9

10-12



physical



cognitive



social



emotional

FINE MANIPULATION

Children in this age group are practising manipulating objects that require complex coordination of small muscles.

Children can practise this by sewing buttons, shooting marbles, and stringing beads.

Stringing beads requires a child to subtly adjust the position of a bead with one hand while lining up the string their other hand.

P2b

5-6

7-9

10-12



physical



cognitive



social



emotional

SELF-ESTEEM

Children in this age group build up confidence by practising favourite activities that require several skills to complete.

Children can practise this by developing the sets of skills involved in activities such as playing the piano, drawing, or playing baseball.

Becoming a better baseball player requires a child to develop skills such as throwing a ball, batting, and running.

S3B

5-6

7-9

10-12



physical



cognitive



social



emotional

SELF-ESTEEM

Children in this age group build up a sense of accomplishment by practising a favourite activity.

Children can practise this by repeating a single task such as colouring a picture, learning to skate, and catching a ball.

A child can practise colouring images they like with favorite colours to create something that they are proud to share.

S3A

5-6

7-9

10-12



physical



cognitive



social



emotional

SELF-ESTEEM



by familymwr

Designer Tips:

- Does the design encourage a child to use skills they have already developed to complete a new task?
- Can the design help a child recognise how certain skills can transfer to a variety of different activities?
- Can the design help a child recognize new activities they could participate in with existing skills?

S3c

5-6

7-9

10-12



physical



cognitive



social



emotional

PERSPECTIVE TAKING



by KimmerKC

Designer Tips:

- Does the design present new points of view in simple terms?
- Does the design make sense without requiring a child to understand a new point of view?
- Can the design help a child to imagine an event from another person's point of view?

S2A

5-6

7-9

10-12



physical



cognitive



social



emotional

PERSPECTIVE TAKING



by bluekdesign

Designer Tips:

- Does the design provide opportunities for a child to be introduced to new points of view?
- Can the design help a child imagine an event from another point of view?
- Can the design recognize when a child changes their actions in consideration of another's point of view?

S2B

5-6

7-9

10-12



physical



cognitive



social



emotional

PERSPECTIVE TAKING



by lindsay.dee.bunny

Designer Tips:

- Does the design require a child to make decisions that take multiple points of view into account?
- Can the design teach a child successful strategies for taking multiple points of view into account?
- Can the design help a child consider or understand important aspects of other's points of view?

S2c

5-6

7-9

10-12



physical



cognitive



social



emotional

PERSPECTIVE TAKING

Children in this age group are starting to be aware that other people have their own point of view.

Children can develop this by telling stories with puppets, playing hide and seek, and playing charades.

Playing charades requires a child to act out clues for words that will make sense from another person's point of view.

S2A

5-6

7-9

10-12



physical



cognitive



social



emotional

SELF-ESTEEM

Children in this age group are practising diverse skills that can be transferred across domains to build self-esteem.

Children can practise this by facilitating group projects, leading a sports team, and participating in public speaking.

Facilitating group projects, leading a sports team, and public speaking all help a child develop communication and problem-solving skills.

S3c

5-6

7-9

10-12



physical



cognitive



social



emotional

PERSPECTIVE TAKING

Children in this age group are practising considering multiple view points and adjusting their behaviour accordingly.

Children can practise this by solving arguments between friends, listening to coaches and parents at a baseball game, and planning a family camping trip.

Planning a family camping trip involves balancing the different needs and preferences of parents, siblings, and friends.

S2c

5-6

7-9

10-12



physical



cognitive



social



emotional

PERSPECTIVE TAKING

Children in this age group are practising considering another's view point and adjusting their behaviour accordingly.

Children can practise this by negotiating game rules, choosing a present for a friend, and practising magic tricks.

Choosing a present for a friend involves considering the friend's interests rather than the buyer's preferences.

S2B

5-6

7-9

10-12



physical



cognitive



social



emotional

FRIENDSHIPS



by nlnnet

Designer Tips:

- Does the design allow multiple children to interact with it in turns?
- Does the design provide strategies to help the child to understand how long a turn is?
- Can the design help a child understand the benefits of cooperation and sharing?

S1A

5-6

7-9

10-12



physical



cognitive



social



emotional

FRIENDSHIPS



Flickr. Author unknown

Designer Tips:

- Does the design provide a shared focus that encourages children to collaborate?
- Does the design reward or require cooperative interaction rather than individual interaction?
- Can the design provide opportunities for trust-building between children?

S1B

5-6

7-9

10-12



physical



cognitive



social



emotional

FRIENDSHIPS



by USAG-Humphreys

Designer Tips:

- Does the design support long-term collaboration between children?
- Does the design require children to take on different roles to achieve a common goal?
- Can the design encourage constructive criticism among children who are working together?

S1c

5-6

7-9

10-12



physical



cognitive



social



emotional

FRIENDSHIPS

Children in this age group are practising two-way cooperation and building trust during activities.

Children can practise this with a friend by playing cooperative video games, building models together, and sharing secrets.

Playing cooperative videos games successfully requires children to share strategies with each other, encourage each other, and help each other in risky situations.

S1B

5-6

7-9

10-12



physical



cognitive



social



emotional

FRIENDSHIPS

Children in this age group are practising cooperative play that involves sharing.

Children can practise this with friends by playing simple card games, skipping rope, and playing catch.

Playing card games requires a child to wait until everyone else has their turn before taking their own turn.

S1A

5-6

7-9

10-12



physical



cognitive



social



emotional

FRIENDSHIPS

Children in this age group are practising loyalty, intimacy, and taking other's needs into account.

Children can practise this by helping each other with school work, working together during team sports, and performing with a band.

Playing in a band requires a child to work closely with other band members during practise so that they can rely on each other during a performance.

S1c

REFERENCE CARD

5-6 7-9 10-12

physical cognitive social emotional

GROSS MANIPULATION



Designer Tips:

- Does the design help a child coordinate multiple movements to complete an action?
- Does the design help a child practise coordinated movements without injuring themselves?
- Can the design demonstrate how different movements combine to carry out a coordinated action?

P3B

A photo with an example of a related activity

Useful tips for designers

INSTRUCTIONS

Audience

The card-tool is intended for designers and design students to be used in projects involving the design of products for children.

Purpose

The cards provide age specific information about children's developing cognitive, physical, social, and emotional abilities.

Specifications

The DSD card set consists of 42 cards, describing 14 developmental areas for 3 age groups (5 to 6, 7 to 9, and 10 to 12).

The cards are colour coded for the different abilities: see the Reference Card, e.g. cognitive in blue.

AUTHORS

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Graphic Design: Allen Bevans, Ying Deng, Saba Nowroozi, Luuk Rombouts

P

PHYSICAL

1. Fine Manipulation
2. Gross Manipulation
3. Locomotion

E

EMOTIONAL

1. Emotional Expression
2. Emotional Regulation
3. Understanding Empathy

S

SOCIAL

1. Friendship
2. Perspective Taking
3. Self-Esteem

C

COGNITIVE

1. Attention
2. Information Processing & Working Memory
3. Problem Solving
4. Reading
5. Reasoning Logic Instructions

Age: A = 5-6, B = 7-9, C = 10-12

e.g. S1_B stands for 'Social - Friendship - Age 7-9'

REFERENCE CARD

Relevant Ages

5-6 7-9 10-12

Domain



Construct

GROSS MANIPULATION

Description of the relevant construct

Children in this age group are practising activities that involve coordinated movement of large muscle groups.

Description of a typical activity children of this age group practice to develop the ability

Children can practise this by jumping on a pogo stick, horseback riding, and rollerblading.

Rollerblading requires a child to coordinate multiple muscle groups in their arms, legs, and torso.

P3_B

ATTRIBUTIONS

DSD Cards use the Creative Commons licensed photos by the following Flickr authors. (The card identifier righter after each author indicates the card that uses the author's work.)

Lighttruth (P1_A), Bruce A Stockwell (P1_B), Wouter Marra (P1_C), edenpictures (P2_A), Chris A (P3_A), courosa (P3_B), Xiaozhuli (P3_C), Ana Fukase (E1_A), climbnh2003 (E1_B), jeffreylcohen (E2_B), woodleywonderworks (E2_C), hubertk (E3_A), McBeth (E3_B), Sheryl's Boys (E3_C), nInnet (S1_A), USAG-Humphreys (S1_C), KimmerKC (S2_A), bluekdesign (S2_B), lindsay.dee.bunny (S2_C), hdes.copeland (S3_B), familymwr (S3_C), Vaughan (C1_A), heraldpost (C1_B), woodleywonderworks (C1_C), used-carspecialist (C3_A), Old Shoe Woman (C4_B), chefranden (C5_A)

In addition, the authors of the photos on the following cards are unknown: P2_B, P2_C, S1_B, C3_C, C5_B, C5_C