Fine Motor Skills Learning Opportunities

A note from the author

Maria Mizzi is an Occupational Therapist who has been working at the Secretariat for Catholic Education (SfCE) for the past 4 years. She designed the Fine Motor Skills Programme with the intention of teaching educators the progression of the hand muscles and hand movements and learn monitor these skills whilst working with students in Kindergartens throughout the scholastic year. Educators will also be able to assist the emergence of the students' fine motor skills to promote hand function and therefore students would be able to participate fully independently as they grow older such as: doing buttons, zipping up a jacket, open/closing bottles, open lunchbox, and handwriting.

The programme is specifically designed to encourage educators to start including fine motor activities in an easy way in their action plans. These tasks assist the development of the small muscles of the hand of our younger generations. The educator will not be expected to assess the fine motor skills of the students, but rather encourage the development.

Prior to the implementation of this programme it is highly suggested that training from an Occupational Therapist is carried out to learn to differentiate the different hand abilities that children bring along when doing these activities at school. Whenever a student has a delayed development in this area and has a great difficulty to carry out any of the activities below, it is suggested that liaison with an OT is carried out for further observation and more specific assessment and intervention strategies.

This programme was developed in collaboration with Ms. Deborah Galea (Head of Department – Literacy), Ms. Pamela Fenech (Head of Department – Curriculum), Dr. Fiona Galea Pace (Head of Department – Early Years), along with educators and students from various church schools.

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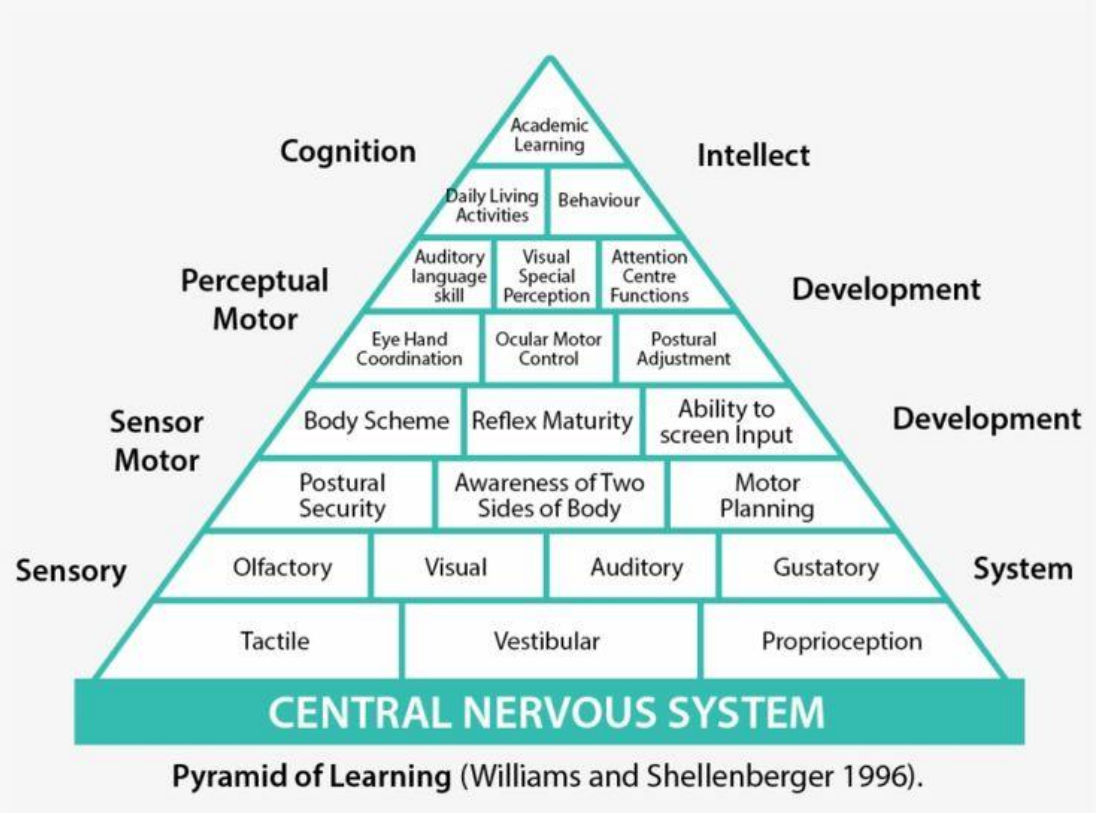


Pyramid of Learning (Williams and Shellenberger 1996).

Prior to understanding how the hands develop at early stages, it is important to have a look at the Pyramid of Learning by Williams and Shellenberger (1996). Essentially these two authors explain that children need a strong base of play and learning through their sensory systems before they may achieve skills that require higher cognitive brain functions.

The pyramid shows how developing the sensory systems is important to support academic learning. It illustrates the foundation for what a child's brain naturally needs to learn socially acceptable behaviour, learn to attend in different kind of situations (focus), and be ready for academic learning.

How Sensory Processing may affect Fine Motor Development

Sensory processing is a child's ability to develop movement and exploration using the senses of taste, touch, vision, hearing, and smell. Infants explore with their mouths and progress to exploring with their hands. Sensory skills become more refined in early childhood. Our senses help us to understand and make sense of the environment around us, we need our eyesight to be able to visualise the things around us, sound to be able to communicate with others, the touch helps us to understand what is harmful and also indicates sense of pain, we have proprioception that tells the brain where our body is in relation to space, and the vestibular system helps us maintain a good upright position against gravity.

When we talk about senses, we usually refer to the five traditional ones: sight, smell, hearing, taste and touch. But there are actually two other senses. These sixth and seventh senses control body awareness (proprioception) and balance and spatial orientation (the vestibular sense).

If kids are uncomfortable touching things, they may be reluctant to play and manipulate objects. This can slow down the development of some other motor skills. Referring to the Pyramid of Learning, if the 7 sensory systems are not developed properly at early stage, more importantly the proprioception and vestibular senses, this will definitely affect gross and fine motor skills.

Sensory stimulation and motor skills, therefore, work very much in sync. You cannot have one without the other. For example in order to walk from one place to another we use our eyesight (vision) first to indicate to the brain in which direction we should be moving, in return the brain identifies where the legs are in space (proprioception), whilst keeping an upright balance (vestibular) and releases enough energy or force in the legs to be able to move about and walk.

Physical exercise provides diverse sensory motor experience and assist the development and the overall coordination of the whole body. Incorporating at least 3 hours of rigorous movement on a daily basis is essential for children between 3 and 5 years of age.

Gross Motor Development and Postural Control

Fine motor developmental skills are very much dependent on overall muscle strength, stability and stamina. The general gross motor development in turn affects very much the child's sitting posture in class. Sustaining a good sitting posture and tolerance, most especially during fine motor activities is important. The bigger muscles of the body have to be well stabilised in order for the brain to be capable enough to focus on the smaller muscles of the hand.

Gross motor skills or movement skills are those which require whole body in action and which involve the larger muscles of the body to perform everyday functions, such as standing and walking, running and jumping, and sitting upright at the table, and maintaining a good upright stature.

Gross motor have an influence on everyday functions. For example, a child's ability to maintain appropriate table top posture (upper body support) will affect their ability to participate in fine motor skills (e.g. writing, drawing and cutting) and sitting upright to attend to class instruction, which then impacts on their academic learning.

Having strong larger muscles will have a great impact of the endurance and the ability to cope with a full day of school (sitting upright at a desk, moving between classrooms, carrying your heavy school bag). Without fair gross motor skills, a child will struggle with many day to day tasks such as a eating, packing away their toys, and getting onto and off the toilet or potty, the ability to pick up items from the floor, and having good spatial orientation.

Incorporating Gross Motor Skills throughout the school day

Movement Breaks transition between lessons, you may include:

- Jumping on the spot – different kind of jumps: pencil jump, frog jumps, jumping jacks
- Windmill action (open hands, feet wide apart, with right hand touch left foot, go up and with the left hand touch right foot)
- Running/jogging on the spot
- Make the room bigger – find a spot on the wall and push the wall as hard as you can with your hands
- Yoga stretches: tree pose, arm circles, standing backbends, standing forward fold, upward salute pose, chair pose
- Obstacle course
- Classroom treasure hunt
- Assisting with classroom chores
- Head, shoulder, knees and toes
- Bring a long pillows at school – toss the pillow in the air and try to catch it back

Below are a few suggested 5 minute videos which are easy to incorporate from YouTube:

- 5 minute classroom workout: https://youtu.be/d3LPrhI0v-w
- Fitness break: https://youtu.be/DS8yeXFeEPA
- 5 min kids cardio workout: https://youtu.be/batQIcd2bME
- 5 min kid yoga routine: https://youtu.be/Jo3ga3Vk6vQ

Action songs:

- Walking in the jungle: https://youtu.be/GoSq-yZcJ-4
- Action songs for kids: https://youtu.be/dUXk8Nc5qQ8
- The floor is lava: https://youtu.be/wbNAiN8FTfc

Change sitting position in class:

- Circle time – sitting on the carpet
- Reading – lying on the tummy or staying in tall kneeling position to improve core stability (not w sitting – the core has to stay upright)
- Colouring – lying on tummy or lying on back and drawing with a paper positioned under the table; colour vertically against a wall
- Standing or kneeling at table instead of sitting





Hand Grasp and Hand Functionality Development

Below you may find an explanation of how the muscles of the hand develop gradually in small children. You may observe this development by noticing the different improved grips that kids may display when carrying out fine motor tasks.

Neat Pincer Grasp (10-12 months)

The child grasps a tiny object the size of a raisin with precise thumb and index finger.

Palmar or Cylindrical Grasp (1-2 years)

The child grasps the crayon and positions one end of the crayon toward the paper.

Digital or Brush Grasp (2-3 years)

The child grasps the crayon with thumb facing down

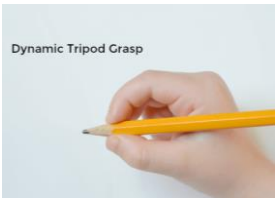
Holds Crayon with Thumb and Fingers (Five finger grasp) (around 2.5-3 years old)

The child holds a crayon with his/her thumb and fingers, rather than in a fisted hand.

Static Tripod Grasp – this may show as a Quadripod Grasp (between 3-4.5 years old)

The child will switch to a static tripod grasp or quadripod grasp. They hold the writing utensils crudely and use the whole pads of their fingers on the writing utensil. There also may still be some wrist and forearm movement to move the pencil, with the fingers not moving, or static. The static tripod grasp is a 3 finger grasp, two fingers pinching the writing utensil and the 3rd (middle) finger tucked to the side of the pencil, forming a tripod. The 4th and 5th fingers are usually static next to these fingers and do not tuck into the palm of the hand yet.

Dynamic Tripod Grasp (5-6 years old)



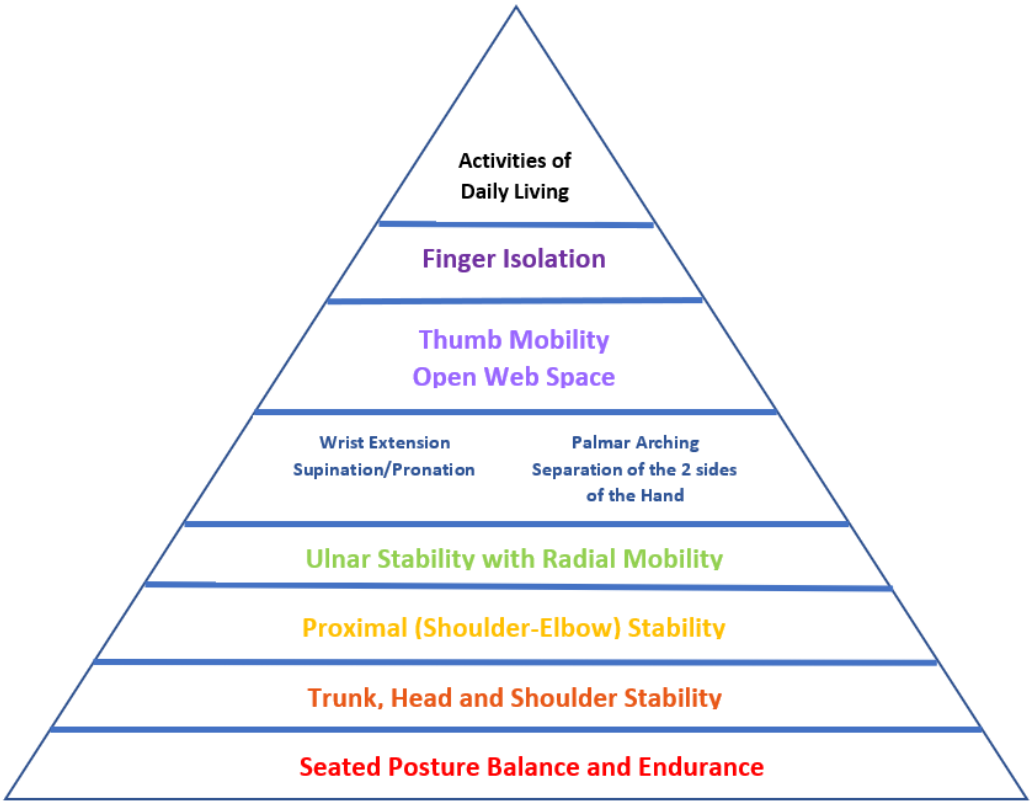
The child will use the tips of their fingers on the writing utensil and also hold the crayon/pencil more at an angle than vertical. Their fingers move back and forth without any forearm or minimal wrist movement (the arm will be resting on the table or writing surface instead of floating above). This grasp is also referred to as a 3-finger grasp, the first 2 fingers on the pencil while resting on the middle finger. The 4th and 5th fingers are tucked into the palm of the hand and help to stabilize the hand on the table.

Adapted from:
https://connectability.ca/2011/03/21/practical-strategies-for-developing-fine-motor-skills/
https://www.growinghandsonkids.com/pencil-grasp-development-for-writing.html

What are Fine Motor Skills?

Fine motor skills involve the use of the smaller muscle of the hands, commonly in activities like using pencils, scissors, construction with lego or duplo, doing up buttons and opening lunch boxes.

Fine motor skill efficiency significantly influences the quality of the task outcome as well as the speed of task performance. Efficient fine motor skills require a number of independent skills to work together to appropriately manipulate the object or perform the task.



Adapted from: Sarah Gilmore – Occupational Therapist (2020)
website: https://sandiegooccupationaltherapy.com/blog/fine-motor-control-moving-up-the-pyramid/

Gilmore (2020) describes that before a child develops the ability to control the small muscles of the hand, at baby stage they need to develop good overall body motor control which as explained in the previous section will encourage fine motor skills to emerge in a smoother manner.

Good sitting posture, back and trunk well supported with chair, feet on the ground (90degrees at the ankle), and good shoulder-elbow stability at the table allow easier and better range of motion at the wrist.

Skills required to develop full use of the small hands

- **Wrist Extension:** With wrist supported at the table, to develop a dynamic tripod grip the wrist has to be slightly bent away from the body.
- **Supination/Pronation:** The ability to rotate the wrist at 180 degrees, making the thumb facing downwards towards the floor (pronation) or upwards facing the sky (supination). Children need to learn that when wrist is rested at the table thumb needs to be facing upwards. This will make using scissors and pencils easier to manipulate.
- **Palmar Arching:** The development of arches of the hand begins during crawling, but continues as children further develop their fine motor skills
- **Separation of the 2 sides of the hand (In-hand manipulation)**: Children need to be able to manipulate objects in their hands, this means moving objects between 1 and fingers, changing position of objects in hands, twisting and turning objects in hand. This ability helps to anchor the hand at the table when carrying a fine motor tasks and gives the first three fingers (thumb, index, and middle finger) the possibility to move freely.
- **Thumb Mobility and Open Webspace:** The opening of the webspace between the thumb and the index finger allows for more precise movements, most especially later on when kids need to learn to carry out letter formulation.
- **Finger Isolation:** The ability of moving our furthest 5 digits separately comes with a lot of practice. Once kids achieve this skill, they would be able to carry out much more complex tasks such as tying shoe laces and do small buttons on shirt.

Supplementary Skills required to be able to enhance fine motor development:

- **Develop hand dominance and bilateral hand co-ordination:** slowly start to identify the hand which they should be using to write, to open bags etc., whilst training the other hand to stabilise objects and learn to use both hands together. Hand dominance starts being developed at ages of 2-4 years old and it's commonly established by 5-6 years old.
- **Crossing the midline:** the ability to reach across the middle of the body with the arms and legs. This allows children to perform a task on the opposite side e.g. transferring objects from one side of the table to the other side using the same hand.
- **Tactile perception and Stereognosis:** the ability to identify objects only by touch and being able to manipulate objects at hand so that they won't fall off
- **Hand and finger strength**

In conjunction with the above fine motor skills, children need to develop other skills which are:

- **Hand-eye co-ordination:** the integration and coordination of movements of the hands, fingers and eyes to control, guide and direct the hands in the performance of a given task such as handwriting or catching a ball.
- **Attention and concentration:** it is important for students to build-up their endurance gradually to focus better during tasks, and this increases also when the children have the ability to maintain good core endurance. It is also important to consider the students' attention ability at different stages.
  NB: A 2 year old can maintain an attention span of 4 to 6 minutes; whereas a 4 year old can extend this time up to 12 minutes.
- **Visual Perception:** refers to the brain's ability to make sense of what the eyes see. This is not the same as visual acuity which refers to how clearly a person sees (for example "20/20 vision").
- **Visual-motor integration:** involves visual perceptual and hand-eye co-ordination skills – the ability to correctly perceive a form in order to correctly replicate it. Children with poor VMI often struggle to form letters well, and struggle to copy drawings. Younger children struggle to draw shapes and numbers. Patterns don't flow, and numbers and letters may be written in a jerky stop-start way.
- **Play and Social Skills:** these are skills that require appropriate behaviour, effective language skills and the ability to plan and sequence physical skills (e.g. games) and to anticipate what might happen next

A few tips before you begin

1. Posture is key! Maintaining a good posture and teaching the students how they should be keeping a good posture at the desk will start them young. The more their back is supported and feet on the floor, the easier it will be for them to manipulate objects at hand. If you want to challenge your students, ask the child to carry out same activity in different positions. If in tall kneel or sitting on the floor make sure that they keep their back upright as possible.

2. Setting up equipment and cleaning up after each short sessions are as important as doing the activity itself. This will be teaching children initiation and completion of activity and will teach them a sense of structure.

3. When children are presented with the activities, talk about the materials that they have in front of them. How they can use the items in real life, have they seen the items before? This will help them develop communication and present them with new vocabulary. For example: show them a paperclip and ask them: “Do you know what is this? Do you know what this can be used for?”

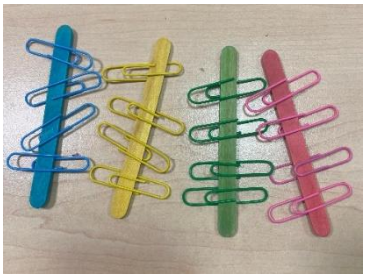
4. There is no “right” or “wrong” way to do these activities. As long as the students is exposed to and manipulating the materials, fine motor skills are being practiced.

Paperclips & Popsicle Sticks

Purpose:

- Sorting and colour matching
- Bilateral-hand integration
- Sense of touch
- Thumb opposition and open web space

Items in the bag: 4 coloured popsicle sticks & 4 of each coloured paper clips (each students has different colours)
Extra items to be supplied: number line, colour sorting wheel, number sorting wheel, bowl, tray



1. The students open the bag and put all items in the bowl.
2. Model by sorting/counting/naming a few colours of paper clips on colour sorting wheel.
3. Line up paperclips & measure the amount together.
4. Model and help students to open paper clips and put them on the coordinating colour popsicle sticks. Name the colours/count.
5. At the end, students will pull apart the paper clips and put items back in the bag.

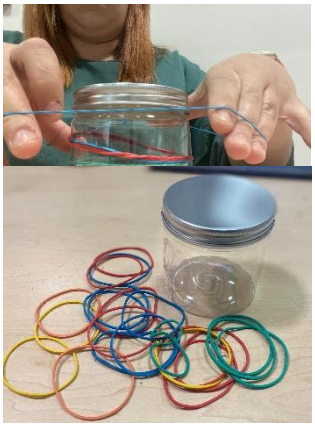
Simplifiers	Challengers
Have students match and put **1** paper clip on each coloured stick.	Put paperclips on with eyes closed.
Adult holds popsicle stick & students puts on paper clip.	Link paperclips together to make a chain & take them apart.
Slightly open the paper clips for students.	Have students lay on tummy/on all fours/tall kneel and complete activity.
Adult puts on, students pushes down.	Build a “sculpture” with the materials.
Have students take off paper clips.	Combine activity with literacy and have students put paperclips on for each syllable/ sound heard in a word.

Jar & Rubber-Bands

Purpose:

- Finger strength
- Bilateral-hand integration
- Hand-eye co-ordination
- Palmar arching

Items in the bag: 22 rubber bands, 1 plastic jar
Extra items to be supplied: number line, number sorting wheel, number-dice, colour sorting wheel, bowl, tray



1. The students open the bag, and take out the jar, which will contain the rubber bands.
2. Unscrew the lid of the jar and put the rubber bands in the bowl.
3. Model by sorting/counting/naming colours of the rubber bands. You may even explore the material of the rubber bands vs the jar.
4. Roll the dice. Then have the students count out rubber-bands corresponding to the number on the dice.
5. Put the corresponding number of rubber-bands over the can by stretching the band over using two hands.
6. Have the students push/roll rubber-band down can.
7. At the end, students take off the rubber bands from the can, using two hands and put them back in the jar.
8. Screw the lid back on and put the jar back in bag.

Simplifiers	Challengers
Adult holds jar still while students puts on rubber-band.	Try to stretch & bring rubber-band down to bottom of jar without touching the jar.
Adult puts the rubber-band on, students rolls it down jar.	Use thicker and/or narrower rubber-bands.
Adult holds one side of rubber band, students stretches other half over jar.	Put multiple rubber-bands on at one time.
Use more elastic or thinner rubber-bands (for more stretch and less force)	Learn to make a chain/ link rubber bands together.
Use a weighted can	Put rubber-bands on vertically.
	Put rubber bands over fingers and stretch all fingers

Activity Variation

Tomatoes & Rubber-Bands

As part of a project on food, the children placed rubber bands around the grooves of the tomatoes they were exploring in class.

A child placing rubber bands around a plastic tomato.

Pipe Cleaners & Colour Beads

Purpose:

- Separation of the two-sides of the hand
- Whole hand stability
- Pincer grip
- Hand-eye coordination

Items in the bag: 20 different coloured beads*, 4 pipe cleaners
Extra items to be supplied: number line, bowl, and colour sorting wheel, tray, number-dice, shoelace (challenger)

1. The students open the bag and put gently the beads in the bowl, whilst putting the pipe cleaners on the tray
2. Name the colours of beads & count the beads.
3. Sort the beads on the colour sorting wheel.
4. Have students lace beads randomly on the coloured pipe cleaner (you may use the number-dice – have the students roll 4 times, one amount for each pipe cleaner).
5. At the end, students slowly take off the beads from the pipe cleaners and put all items back in the bag.

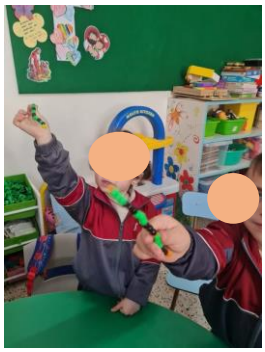
***Adaptation**: you may choose to use cereals instead of beads to have something which is edible just in case students put the item in their mouth. Make sure that this is thrown away after use.

Simplifiers	Challengers
Adult holds the pipe cleaner while students puts beads on.	Have students lace the beads on a shoelace.
Adult puts bead on, have students slide bead across.	Have students close their eyes and try to put beads on the pipe cleaner.
Have students only take beads off.	Use tweezers to pick up and lace beads.
Use larger beads.	Stack the beads by colour or patterns.
	Allow student to form bracelets or necklaces

Activity Variations

Making Worms

As part of a project on minibeasts, the children created worms by threading beads onto pipe cleaners. To incorporate numeracy, they also practiced creating patterns with the beads.

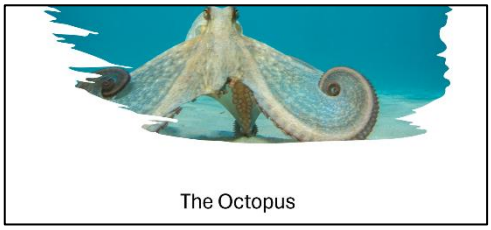


Click on this image for more details about the project.

Creating Octopus Tentacles

As part of their "Under the Sea" topic, the children learned about sea creatures, focusing on the octopus. They had the opportunity to touch a real octopus and learn fascinating facts about it. Then, they created octopus tentacles by threading pasta shells, which they had previously painted, onto pipe cleaners. Using numeracy, they followed patterns to create either simple or complex designs, depending on their abilities.

Click on the image for more details.



Stickers & Letters

NB: This activity may only be done for a few times due to the limited amount of stickers. If the school is ready to supply more stickers (or kids may bring more from home), you may proceed with carrying the activity more often, otherwise see variation of activity at the end of the booklet under **Activity Variations**.

Purpose:

- Pincer grip
- Separation of the two sides of the hand
- Thumb opposition and open web space

Items in the bag: stickers and blank paper
Extra items to be supplied: colours/crayons, number line, tray, number-dice

1. Take out the stickers and the blank paper from the bag and put them on the tray.
2. Ask students to choose a letter or a shape (prewriting shapes template) and draw freehand on the paper.
3. Put the paper inside the transparent bag.
4. Have students roll dice and try to count the number on the dice.
5. Take off the stickers from the sheet, and put the corresponding number of stickers on the letter/shape from outside the bag (see photo). Continue until they are done with the letter/shape.
6. Have students peel off the stickers and put them back on the sheet.
7. At the end, students will keep the letter and will clean up items back in the bag.

Simplifiers	Challengers
Prepare a template of letter or shape for students if they are not able to draw one themselves.	Make a pattern with the stickers on the letter.
Take off sticker and place over top letter and allow students to just push it on.	Use smaller stickers.
Use larger stickers.	Have students write a word starting with letter using whiteboard marker on bag.
Peel off stickers for the students from the sheet.	

Activity Variation

Snails

During an exploration of snails, one of the learning opportunities encouraged the children to cover snail outlines in glue, and then carefully place pasta shells onto the glue. Click here for additional learning opportunities ideas.

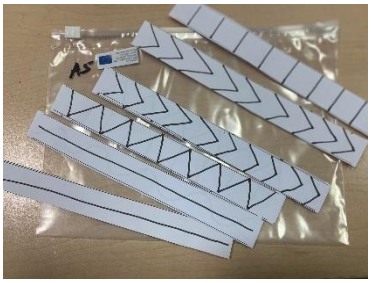
Snipping Paper

Purpose:

- Elbow stability
- Bilateral-hand integration
- Separation of the two sides of the hand
- Wrist rotation

Items in the bag: paper strips (found in appendix)
Extra items to be supplied: scissors, bowl, number dice, number line, glue, blank paper, crayons/colours, tray

1. Prepare the child's posture before activity, make sure that you show them how to hold scissors before activity starts – The dominant hand should hold the scissors with thumb up and elbow close to body, whilst the other hand controls the movement of the paper.
2. Have students open bag and take out the paper strips.
3. Use crayons to colour the strips.
4. Model and then have students rolling the dice and snipping the corresponding number of times from the strip. Start with the easiest snips first.
5. Have students collect paper from the tray using pincer grip and put the paper snips in the bowl.
6. Glue the snips of paper on a blank paper.
7. Count the number of snips on the blank paper.
8. Have students clean up items.



Adaptation: You may choose/create as many strips as you like. This YouTube video (2021) may help you create other strips. https://youtu.be/lvN3iTnBzbg

Simplifiers	Challengers
Adult holds the paper while the students snips.	Draw a large circle on blank paper and glue the paper snips inside.
Use spring scissor to help with opening the scissors.	Create a pattern with paper snips on the blank paper
Gently provide over hand assistance.	Snips in circular motion
Put book under elbow to keep arm stable.	Pick up paper snips with thin tweezers

Letters Clothespins & Alphabet Strip

Purpose:

- Intrinsic muscle strength
- Thumb opposition and open web space
- Palmar arching

Items in the bag: small letters on clothespins (a to z)
Extra items to be supplied: bowl, tray, alphabet strip

1. Have students open bag and put the clothespins in the bowl.
2. Point and say/sing the alphabet on alphabet strip.
3. Have the students match the clothespins letter to the letter of the alphabet on the strip. Make sure they use the fingers to open the clothespins rather than their whole hand.
4. Some students may want to match the small letters with capital letters; however this is just an option.
5. Have students take clothespins off (by pressing not pulling) and put all the items back in the bag.

Adaptation: Both upper case and lower case letter strips are available. You can choose the strips that have both sets of letters or the strips separately.

Simplifiers	Challengers
Adult holds the alphabet strip	Have students sequence all letters of the alphabet
Allow students to use two hands to open clothespin or whole hand grip	Have students make a pattern – for example letter ‘a’ the clothespin goes on the bottom of the strip and letter ‘b’ the clothespin goes on the top of the strip, whilst letter ‘c’ goes again on the bottom (or any other pattern)
Have students just remove the clothespin off the strip by pulling	Write words on a whiteboard and have students match the letters accordingly.
	Match capital with small letters and vice versa

Coins & Slot Can

Purpose:

- In-hand manipulation
- Wrist rotation
- Thumb opposition and open web space

Items in the bag: coins and money box
Extra items to be supplied: bowl, tray, big/small template

1. Initiate task by asking students to open the bag and take out the coins in the bowl.
2. Model the first few using a pincer grasp (index finger and thumb) sorting between small coins and big coins on the template.
3. Make sure students is using a pincer to pick up coins one at a time when sorting.
4. Put the coins on the tray with number facing up and ask the students to use pincer grip, pick them up from the table and turn them over to face the number down.
5. Place the money box in front of the students with the slot being horizontal. Pick up the coins again, one at a time and put in slot can. Count if you would like.
6. Have students clean up by putting coins and money box back in the bag.

Children dropping coins in a money box.

Simplifiers	Challengers
If they cannot put it through the slot, remove the lid and make them throw the coins inside	Have students try to pinch and pick up coins with every finger to thumb (index, middle, ring and small finger separately)
An adult holds the coin vertically to be easier for child to grip using only two fingers	Have students grab a bunch of coins and hold them in their palm, then ask them to bring coins one by one up to fingertips. Make sure they do not help the transfer by brushing their hand against the tummy.
Place coin halfway through slot and make child push it through	Hold coins in hand, whilst picking up new coins.
If the child cannot keep the last two fingers closed, use a small object to keep in the palm of the hand	Change the direction of the slot and container (vertical or diagonal)

Button Snake

Purpose:

- Hand-eye coordination
- Bilateral-hand integration
- Touch sensation
- Self-help skills

Items in the bag: felt shapes, button snake
Extra items to be supplied: colour sorting wheel, shapes template, bowl, tray

1. Have students open bag and put shapes in the bowl and the snake on the tray.
2. Model naming shapes, colours and sorting.
3. Match the shapes on the Shapes Template (in appendix).
4. Model how to button the shapes on the button snake. Show them how to push/pull the button through the slit.
5. Have students button all the shapes.
6. Have students unbutton and clean up resources bag in the bag.

Simplifiers	Challengers
Have student unbutton only	Un/button with eyes closed
Adult puts button halfway through and child pulls or pushes through	Cut smaller opening in new felt shapes
Adult hold shapes with the slit a little open so it will be easier for child to slide in the button	Use smaller buttons with smaller openings
Make a wider opening in the felt	Trace/draw the shapes on paper or whiteboard

Toothpicks & Spice Jar

Purpose:

- Hand-eye coordination
- Pincer grip
- Thumb opposition and open web space

Items in the bag: 22 toothpicks, spice jar
Extra items to be supplied: number dice, bowl, tray, number sorting wheel

1. Have students open bag and take out the spice jar with the toothpicks inside.
2. Help the students to unscrew the spice jar and take out the toothpicks to put them inside the bowl.
3. Model and have students roll dice and count toothpicks while placing them on the number sorting wheel.
4. Model and ask students to open the lid of the jar by putting the jar in the palm of the hand with the thumb facing up. Use thumb to open the top of the lid.
5. Pick up the toothpicks using pincer grip and insert through the holes of container.
6. When the activity is ready, keep the toothpicks inside the spice jar. Put the jar inside the bag.

Simplifiers	Challengers
Avoid sorting, ask child to post toothpicks in container	Have students try to pick up toothpicks with each different finger against the thumb (index and thumb, middle and thumb etc.) and put it through hole of container
Remove lid of container when child feels frustrated to pass the toothpick through a small hole	Use fine pincer grasp to pick up, keeping middle, ring and small finger closed.
Hold toothpick vertically and have child take it, this avoids picking up from table	Work on adding or subtracting using the number line
Do not use thumb to open the top part of the jar, you may ask child to use whole hand, otherwise students may be assisted by adult.	Keep a few toothpicks in the palm of the hand whilst posting toothpicks
	Put the jar on left side of table and use right hand to post (crossing midline)

Ice-Cube Tray & Pom-poms

Purpose:

- Crossing the midline
- Hand strength
- Palmar arching

Items in the bag: ice cube tray, coloured pom-pomps
Extra items to be supplied: bowl, tray, colour sorting wheel, tweezers, spoon/clothespin (challenger)

1. Have students open bag and put all pom-poms in the bowl.
2. Model and sort the pom-poms by colour with tweezers on the colour sorting wheel.
3. Model opening and closing hands to mimic the movement the fingers need to do when opening/closing tweezers to pick up pompoms.
4. Model putting pom-poms one by one in ice-cube tray with tweezers.
5. Place the ice-cube tray horizontally in front of the students (like photo).
6. Have students put pom-poms in tray using tweezers.
7. Have students clean up pom-poms one by one using pincer grip and put inside the bag.

Simplifiers	Challengers
Have students use fingers instead of tweezers if the tweezers are too hard for small hands	Use spoon/clothespin to transfer pom-poms from bowl to ice-tray.
Use two hands to hold the tweezers tight when picking up tweezers	Put the tray on either side of the table and keep the bowl in the middle and ask students to transfer to either side of the table
Allow child to switch hands half way through if the hands get tired	Have students hold the pompom on the tweezers for a couple of seconds before they release it into the tray
	Using both the left and right hands when doing activity (complete one set with left and one set with right – avoid switching hands)

Activity Variations

Pom-Pom Sorting

In this activity, children use pincers or clothespins to sort pom-poms by color, placing them on the corresponding colored sheet.

Children using pincers/clothespins to sort pom-poms by colour.

Sheep

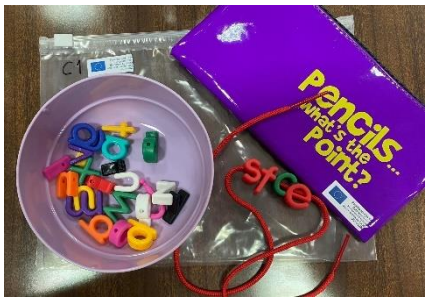
In this Christmas-themed learning opportunity, children used pincers to place the correct number of sheep corresponding to the number value shown on the number card.

Pencil Case & Alphabet Beads

Purpose:

- Hand-eye coordination
- Shoulder and forearm stability
- Palmar arching
- Bilateral-hand integration

Items in the bag: alphabet beads (a-z), pencil case, shoelace
Extra items to be supplied: bowl, tray, colour sorting wheel, alphabet strip, pipe cleaner (simplifier)



1. Before initiating activity students should take out the pocket from the bag and put it on the tray.
2. Have students unzip case to take all letter beads out into the bowl.
3. Model matching letter beads on alphabet strip/colour sorting wheel and name the letters & colours of the beads.
4. Lace the beads on the shoe-lace using two hands. Write letters on the whiteboard, students will find the matching letter in their pile and bead it on the shoe-lace.
5. Have students take all the beads out of the shoe-lace and clean up by putting beads back in pocket.
6. Close the pocket and but it back inside the bag.

Simplifiers	Challengers
Have students lace the letters on a pipe cleaner	Bead the letters with eyes closed
Adult holds pipe cleaner/lace and students puts bead on	Have students put hand in pencil case and with eyes closed they have to try and guess the letter by feeling it
Have students only take off or slide bead across lace/pipe cleaner	Have students match letter to form CVC words on whiteboard/paper
	Have students try to bead their name

Zip it

Purpose:

- Pincer grip
- Self-help skills
- Bilateral-hand integration
- Shoulder and forearm stability

Items in the bag: zipper board (4 close-ended zips and 1 open-end zip).
Extra items to be supplied: tray, dice

1. Students take out the zipper board from the bag.
2. Model and show the students how to open and close the close-ended zip.
3. Have students put the end of the open-ended zip away from the students (the top of the zip should be close, and the clasp far from the students)
4. Model how to close the open-ended zip by putting the clasp together, make sure students use both hands.
5. Have students put the clasp together.
6. Model rolling the dice and zip the corresponding number.
7. Have students unzip and zip the zipper on their own for practice. Make sure students use two hands whilst doing activity.
8. When the activity is over put the zipper board bag in the bag and close it.

Simplifiers	Challengers
Practice doing the bottom of the open-ended zip by doing hand on hand	Ask students to start from scratch all on their own
Have students only do the close-ended zips	Do the un/zip motion with eyes closed
If the zipper is small for the child's fingers, insert a keyring in zip for bigger grip	Try different types of zippers, bags, coats, jackets etc.

Pom-poms, Beads and Paperclips

Purpose:

- Pincer grip
- Thumb opposition and open web space
- Separation of the two sides of the hand
- Hand-eye coordination

Items in the bag: 10 coloured pompoms, 10 small beads, 10 paper clips, and 3 cups
Extra items to be supplied: tray, bowl, tweezers/clothespin (challenger)

1. Have students open bag and put all the materials together into the bowl.
2. Model picking up pom-poms, beads and letters beads using pincer grip (keeping the other 3 fingers closed).
3. Have students sort each of the materials inside each of the different cup.
4. Using pincer grip transfer again each of the materials from the cups into the bowl all mixed together.
5. Have students clean up by putting materials back in (you may ask the students so that altogether they may count the quantity of each of the items) and close the bag.

Simplifiers	Challengers
Reduce activity to sorting 2 items instead of 3	Use a clothespin or tweezers to pick up materials
Put a picture or put one item in front or inside each cup to remind the students where each of the materials should go	Add another material and another cup to sort e.g. coins
Pick up one item at a time, first pick up all beads, than pompoms, than paperclips	Use hands and collect a bunch of items from the bowl. Keep the items at hand and pull-up materials slowly up to fingers one by one to sort in appropriate cup.
	Ask students to sort by colour rather than by shape

Number Clothespins

Purpose:

- Finger strengthening
- Hand-eye coordination
- Wrist stability

Items in the bag: clothespins with numbers, number line
Extra items to be supplied: tray, bowl

1. Have students open containers and take the clothespins out and put them in the bowl.
2. Point and say the numbers left to right on the number line. Making emphasise that we start checking the numbers from the left will help students learn the left-to-right pattern for later on when they start reading.
3. Count to ten and then backwards using the number line.
4. Clip the clothespins on the corresponding numbers.
5. Have students take off by pressing the clothespins & clean up by putting the items bag inside the bag.

Simplifiers	Challengers
Adult holds the number line	Have students put on odd or even number only
Allow students to use two hands to open clothespin	Have students try to put on clothespin with each finger and thumb (i.e. middle and thumb)
Adult puts clothespin on, and students takes them off	Create number sticks (using popsicle sticks) with missing numbers, and ask students to fill-in the numbers.
	Use the 1-20 number line

Flip It

Purpose:

- In-hand manipulation
- Self-help skills
- Wrist rotation
- Intrinsic muscle strength

Items in the bag: spatula
Extra items to be supplied: tray, bowl, playdough, scissors

1. Have students open bag and take items out.
2. Model rolling playdough into a long snake using both hands together.
3. Model and allow children to cut the playdough into small pieces using scissors.
4. Roll pieces into small balls (this can be done using two hands together or rolling the ball in circular movements on the table).
5. Squish down the balls using the spatula onto table.
6. Have students flip and cut the pancakes with a spatula. If you have some time you may allow some time for pretend play.
7. Have students squish all the playdough balls into one big ball and put in container. Put the spatual back inside the bag. Collect or put the scissors accordingly.

Caution: Make sure that the students handle the scissors properly. The dominant hand should hold the scissors with thumb up and elbow close to body, whilst the other hand controls the movement of the playdough.

Simplifiers	Challengers
Adult rolls playdough into snake whilst students only has to snip	Have students lift the playdough up with the spatula and flip it into the bowl.
Students squishes the snipped pieces onto table without form the ball	Try with non-dominant hand
Students may cut the snake without using scissors (using their hands)	Turn spatula sideways and cut playdough (like a knife)
	Allow child to make different shapes with playdough (pretend to make a cake, burger, etc)

Flower Playdough

Purpose:

- Wrist extention
- Palmar arching
- Thumb mobility and open webspace
- Bilateral hand integration

Items to be supplied: fresh flowers, playdough

As part of their project on flowers, the children carefully dissected the delicate parts of a flower and then recreated each part using playdough.

Click this image for more details about the project.

Counting Dots

Purpose:

- Bilateral-hand integration
- Palmar arching
- Thumb opposition and open web space

Items in the bag: 5 popsicle sticks with different amount of dots, 5 clothespins with numbers
Extra items to be supplied: tray, bowl, number line, number wheel

1. Have students open container and take items out. Put the clothespins inside the bowl whilst leaving the sticks on the tray.
2. Model by counting, naming the colours, & sorting the clothespins.
3. Have students sort the clothes pins on the number wheel.
4. Have the students try to clip the clothespins on the corresponding coloured popsicle.
5. Match corresponding number together and clip the clothespin onto the popsicle stick (you may use the number line to help).
6. Take off the clothespin by pressing it using pincer or tripod grip.
7. Have students put the items away in the bag.

Simplifiers	Challengers
Adult holds popsicle stick	Have students create different designs using popsicle and clothespins
Students uses two hands to open clothespins	Have students use each of the finger and thumb to pinch clothespins on top of popsicle
Students only takes off clothespins by pulling them off the stick	Have put the popsicles after each other with the number order
Students match the amount of dots to their corresponding number only	

Frog Hopper

Purpose:

- Bilateral-hand integration
- Finger isolation
- Finger strength

Items in the bag: 4 frog hopper
Extra items to be supplied: bowl, number line, clothespin (you may use these from Set D1)

1. Students take out the frogs from the bag and put them on the table (do not use tray).
2. Model how to push frog with index finger to make it hop into the bowl (model how to close whole hand and leave only the index finger out).
3. Using the non-dominant hand tilt the bowl, whilst with the other hand push the frog to jump inside the bowl
4. Have students press the frog hopper until they put all the frogs in the bowl (repeat as necessary).
5. After every frog that the students manages to put into the bowl, ask them to mark it on the number line using a clothespin to keep count. Count each press to practice 1 to 1 correspondence.
6. Have students put items away back in the bag. The frogs may be fragile so it will be necessary to indicate students how to properly care for the items.

Simplifiers	Challengers
Allow students to use index & middle finger to push frog.	Have students use each finger and their thumb to make frogs hop (i.e. Pointer, Pinky, etc.)
Eliminate making it into the bowl, just make the frog jump	Make targets for them to land on (i.e. letters, numbers, words, etc.)
Eliminate counting on the number line using clothespin	Make the frog jump higher by using slightly more strength
Adult will help student hold the bowl tilted	

Hole Punch & Confetti Make

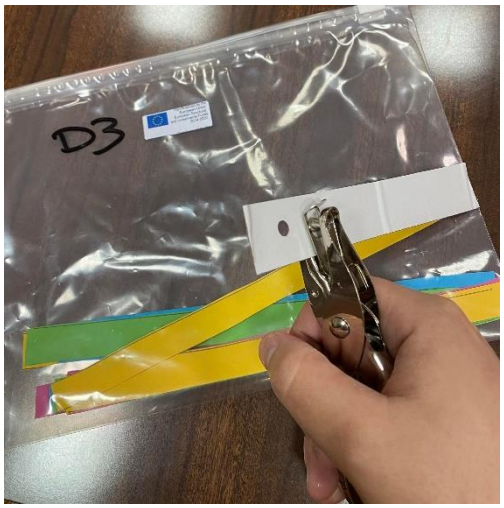
NB: This activity may be very challenging, especially for the younger students, see variation of activity at the end of the booklet under **Activity Variations**, if you wish to change activity.

Purpose:

- Hand strength
- Shoulder and forearm stabilisation
- Eye-hand coordination
- Open web space

Items in the bag: hole punch, strips of coloured paper (when these finish you may need to create new strips of paper)
Extra items to be supplied: bowl, tray, colour sorting wheel, number dice, blank paper (challenger), cardboard (challenger), shoelace (challenger), kite paper (simplifier)

1. Students take out the material and put them on the tray.
2. Model rolling the number dice and punching out corresponding number with hole punch.
3. Have students roll dice and punch out corresponding colour/number with hole-punch on their own.
4. Have students sort confetti by colour on the colour sorting wheel. EXTRA: The confetti may be used to create a design on a blank paper.
5. Have students put items away.



Simplifiers	Challengers
Adult holds paper for students to slide paper and punch.	Drop the punched paper on the table and have the students pick them up using a pincer & put them back into the bowl
Allow students to use two hands to squeeze hole punch.	Have the students try and punch the holes faster.
Tear small pieces of paper using two hands instead using the hole punch	Use thicker paper/ cardboard
No rolling of dice just focus on punching	Lace the paper with the shoelace
Use kite paper instead of paper strips	Punch multiple pieces of paper at once

Oh Snap!

Purpose:

- In-hand manipulation
- Pincer grip
- Bilateral-hand integration

Items in the bag: coloured hair clips, satin ribbon
Extra items to be supplied: bowl, tray, colour sorting wheel, number sorting wheel

1. To start the activity ask students to open the bag and put the hair clips into the bowl and the ribbon on the tray.
2. Before you start activity ask the students what are the hairclips and what do they think that these may be used for.
3. Model opening and closing hair clips. Make sure you show them that they need to use both hands.
4. Have students sort by similar shade of colour on the colour wheel or count on the number wheel.
5. Have students try to snap all the clips onto the lace. If this is too difficult to handle they can learn to snap the hairclips on the edge of the bowl.
6. Have students snap off the hairclips and clean items up and put everything inside the bag.

Simplifiers	Challengers
Adult lines up the snaps and student presses.	Have students snap the clips on a shoelace.
Adult lines up snaps on table and student pushes down.	Have students make a chain, linking the clips together.
Students snap/unsnap only.	Ask students try and snap with one hand.
Students snap on a harder surface like their school bag.	Try to snap on a paper.
	Try to snap doing a pattern on the lace, for example green, blue, yellow, green, blue, yellow. Students has to do this by following 3 step instruction.

Yummy in my Tummy

Purpose:

- Palmar arching
- Intrinsic muscle strength
- Thumb opposition and open webspace
- Finger isolation

Items in the bag: coins and a tennis ball
Extra items to be supplied: bowl, tray, number line

1. Start the activity by opening the bag and putting all coins inside the bowl. Make sure that no coins remain stuck inside the ball.
2. Model opening/closing tennis ball. This may be challenging for the students trying it for the first time. It is important that children understand the term opening/closing the whole hand. Make sure that they know that they need to exert some pressure on the ball for the mouth to open. Children will also need to understand that the mouth and eyes of the ball have to be placed facing forward.

3. Let the students try the above movements first and learn to be able to open the mouth of the ball before moving to picking up coins.
4. Model picking up coins from table using pincer and putting inside the ball.
5. Ask students to repeat the same squeeze the ball really hard with the dominant hand and open wide, put the coins inside the mouth of the ball.
6. Say the number on the coins and count the number of coins when putting them inside the ball. Point out to students that coins do not have all the numbers, as we do not find a coin for every number.
7. Have students clean up by removing the coins first from inside the ball (using one finger and scooping the coins out) and then putting items away.

Simplifiers	Challengers
Students use two hands to squeeze tennis ball this will teach the strength required to open the ball.	Do “coin bingo” game – say the name of the coins 1c, 2c, 5c and see if the students can find the coins from the bowl
Make slit larger for mouth opening.	Keep a bunch of coins in the non-dominant hand and pull up the coins one by one to the fingers.
Adult squeezes the ball and the students puts the coin in and then student squeezes the ball and teacher takes out coin.	First try to squeeze the ball with most dominant hand and then try to squeeze with the other helping hand.

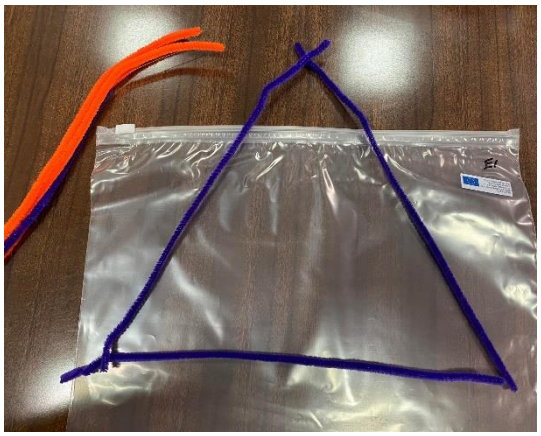
Pipe Cleaners Fun

Purpose:

- Wrist rotation
- Bilateral-hand integration
- Separation of the two sides of the hand

Items in the bag: pipe cleaners (they may need to be replaced after a few uses)
Extra items to be supplied: bowl, tray, number line, scissors (when necessary), colour sorting wheel, number sorting wheel

1. Have students open bag and take out the pipe cleaners onto the tray.
2. Model sorting by colour on the colour sort, or by number on the number sorting wheel.
3. Model manipulating pipe cleaner using one hand (finger exercises), you can move fingers like a snake from one end to the other (backwards and forward).
4. Have students repeat action above.
5. Model manipulating pulling straight, rolling into a circle, connecting, twisting, make shapes, etc. Start by creating straight lines, and different direction lines such as vertical, horizontal, diagonal, etc and move onto shapes.
6. You can show different shapes (see shapes template) and use the number line to count the number of sides of the different shapes
7. Have students roll them, twist them, roll together, and creating different shapes by counting sides. Pipe cleaners may be cut using scissors as necessary.
8. Have students end the activity by straightening pipe cleaner to clean up.



Simplifiers	Challengers
Ask students to only fold in two and pull back straight	Pull & roll until it is straight
Have students roll one pipe cleaner like a snake	Create 3D shapes (see 3D shapes template)
Create only one shape – circle by joining end together.	Have students braid, tie, knot, string, together and take apart
	Make shapes/letters/ numbers
	Try to use one hand to manipulate

Activity Variation

Bees

During an investigation about bees, the children created bee models using toilet paper rolls and pipe cleaners. They threaded the pipe cleaners through holes in the toilet paper rolls (representing the bees' bodies) to create legs. The bees were then used to explore the pollination process. The children dipped the bees' legs into a crushed salty snack (acting as pollen) and shook it onto flowers to simulate pollination. Click **here** to view the entire project.

Playdough and Sticks

Purpose:

- Wrist rotation
- Bilateral-hand integration
- Separation of the two sides of the hand

Items required for activity: playdough, toothpicks/wooden sticks, bowl, tray, number line, scissors, Shapes and 3D shapes templates.

1. Have students open bag and take out the playdough and toothpicks onto the tray.

2. Model manipulating pulling straight, rolling into a circle, connecting, twisting, make shapes, etc.

3. Model forming playdough balls by using the palmar arches and go round in circle on the table. Have students repeat this action to form multiple balls.

4. Have students start by first putting a small ball of playdough on each side of the toothpick.

5. Use the Shapes and 3D Shapes Template to create different designs (as seen in photo). Let students be creative and create their own original forms.

6. Have students end the activity by putting the structures down, remove the playdough from the toothpicks. Clean up the playdough back in its' plastic case and the toothpicks back in the bag.

Simplifiers	Challengers
Adult cuts playdough, and students inserts toothpicks in playdough	Form different shapes with playdough (such as cube instead of ball) to stick onto the toothpicks
Skip the rolling a ball, but instead allow students to use roughly cut playdough pieces	Create their names using this technique
Create only a straight line by putting two balls of playdough at either side of the toothpick	Have students create 3 different playdough snakes and try to braid the playdough together
	Make shapes/letters/ numbers
	Try to use one hand to manipulate

Activity Variation

Toothpicks & Cars

In their topic on transport, the children created their own vehicles by slicing pieces of fruit and attaching them together with toothpicks.

Let's Sew!

Purpose:

- Self-help skills
- Bilateral-hand integration
- Separation of the two sides of the hand
- Wrist rotation
- Hand-eye coordination

Items in the bag: squared plastic net, 2 threads, plastic needle and beads
Extra items to be supplied: bowl, tray

1. Have students open container and take beads, ribbon and plastic needle into bowl.
2. Have the students choose their favourite colour of thread.
3. Model how to put the thread inside the needle eye.
4. Have students put the thread through the needle eye.
5. Model and use the needle to go through the netting in various direction, model first and ask the students to follow the same movements.
6. Model putting beads inside needle and then pass needle through netting. **PS**. The needle is bigger then the beads, therefore the beads do not go through the needle.
7. When ready, students may take of the needle from the thread and then take off the thread from the netting, return the beads in the bowl.
8. Have students clean up by putting materials away in the bag.

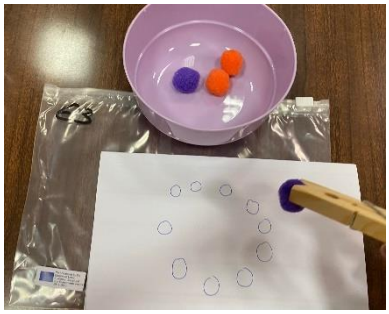
Simplifiers	Challengers
Adult puts the thread inside the needle	Adult models that when threading netting needs to be flipped for the threading to go over and under accordingly.
Do not ask to use beads, use only needle and thread	Use other resources like buttons or felt to increase the creativity.
Ask the students to pass one time over and flip the netting for the students to understand that now they need to change side.	Ask students to try and pass the ribbon through the netting without the needle
	Make a pattern, for example carry out threading to form a square.

Dot Painting

Purpose:

- Separation of the two sides of the hand
- Intrinsic muscle strength
- Wrist rotation
- Self-help skills

Items in the bag: varied coloured pompoms, one clothespin
Extra items to be supplied: bowl, tray, dot painting template, paint (any colour), cotton bud (challenger)



1. Have students open the zip-lock bag and take out the pompoms and the clothespin.
2. Hand out templates for dot-painting. Teacher may choose from a template from the ones available with the programme.
3. Model opening the clothespin and put it on the pompom to use it instead of paintbrush.
4. Student should do the same and paint the dots one-by-one using dot-painting technique.
5. When students finish activity, model opening the clothespin again, and put the used pompoms in the bowl to be washed. Students may be asked to clean the pompoms from paint.
6. When ready, leave pompoms to dry, whilst put the clothespin back in the bag.

Simplifiers	Challengers
Prepare the clothespin with the pompom	Provide a more complex template
Provide an easy and simple dot-painting template (up to 5 dots)	Ask student to carry out dot painting by number
Give student a blank paper and student may stamp on the paper randomly.	Dot-paint letters/shapes/number templates
Present only one option of paint.	Dot-paint only with pompom, students may need to be more precise when doing this without clothespin
	Carry out dot-painting using a cotton bud

Activity Variations

Pumpkins

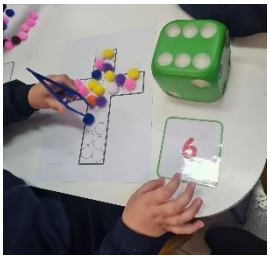
An alternative activity could involve using pincers to place pumpkin seeds on the dots of the template, especially if the theme is food or autumn.

Children using pincers to place pumpkin seeds on the shapes.

Easter

Another variation, this time related to Easter, could involve the children watching the Easter story, which includes a reference to the cross.

They then roll a dice, match the number to its corresponding numeral, count out the same number of pompoms, and use pincers to place them on the provided cross (in appendix).



Finger Painting

Purpose:

- Separation of the two sides of the hand
- Intrinsic muscle strength
- Wrist rotation
- Finger isolation
- Bilateral hand integration

Items to be supplied: octopus template (see appendix), paint (any colour), a cup to hold the paint

As part of their "Under the Sea" topic, the children discussed the number of tentacles on an octopus, and created fingerprint patterns along the octopus's tentacles.

A child dot painting an octopus's tentacles.

Eye Spy Sensory Bag

Purpose:

- Separation of the two sides of the hand
- Tactile perception
- Wrist rotation
- Self-help skills

Items in the bag: A small cloth bag filled with the following items: 10 popsicle sticks, 10 pompoms, 10 paperclips, 5 beads, 10 coins
Extra items to be supplied: bowl and tray

1. Start activity by opening the zip lock bag and take out the small cloth bag from inside. Student should transfer all the items inside the small cloth bag into the bowl.
2. Count and name the items that students may see in the bowl.
3. Students should feel the items and identify different kinds of textures such as: soft, harsh, cold, warm, plastic, wood etc. When students are familiar with the items they may transfer them into the small cloth bag.
4. Demonstrate how students should keep the bag on their lap and ideally under the table.
5. Students will put their hands inside and feel and guess what's inside the bag.
6. Call out one of the items from the above list and students will have to fish it out of the bag without peaking inside. You may add visuals if students find it hard to recall the name of the items in the bag.
7. Continue until all the items are out back into the bowl. Once all items are out put them back inside the cloth bag.
8. Have students put the cloth bag back inside the ziplock bag and close it.

Simplifiers	Challengers
Allow the students to have a few peaks before collecting the resources asked.	Do not show visuals, ask the students to find the object through verbal instruction only and by using their touch perception.
Pick-up one object at a time.	Instruct to pick-up multiple objects at a time.
Provide one instruction at a time with the use of photos or visuals.	Ask the child to close their eyes during activity.

Peg a Sponge

Purpose:

- Pincer grip development
- Seperation of the two sides of the hand
- Intrinsic muscle strength

Items in the bag: 16 small sponges (2 different colours), 2 sets of different coloured clothespins
Extra items to be supplied: 2 bowls, tray, number line

1. Have students take out sponges and clothespins from bags and sort them in 2 different bowls (sponges and clothespins separately).
2. Model pinching the clothespin and putting it on the sponge, matching clothespin and sponge colours.
3. Have the students repeat the action, encouraging pinching the clothespin with thumb and index finger.
4. Using the number line, count how many clothespins and sponges (e.g. 8 blue and 8 green). Use pointing and number line.
5. Have students separate the clothespin and sponges and sort them in their bowls.
6. Have students put all items in the ziplock bag to clean up.

Simplifiers	Challengers
Adult holds the sponge	Have students create a pattern e.g. 2 blue sponges, 2 green sponges
Allow students to use two hands to open clothespin	Have students try to put on clothespin with each finger and thumb (i.e. middle and thumb etc.)
Adult puts clothespins on, and students takes them off	Try to put on clothespin with eyes closed.
	Hold more than one clothespin at hand whilst doing activity.

Activity Variation

Socks

An alternative activity is for the children to wash and hang **socks** on a clothesline. To connect this with science, some socks can be placed in the sun and others indoors to observe and discuss which ones dry first and why. **Click on the image for more details.**

Making Honey

Purpose:

- bilateral hand integration
- hand and finger strength
- thumb mobility and open webspace
- finger Isolation
- Palmar arching

Items needed: a glass jar filled with coloured water mixed with sugar (representing nectar), an empty glass jar, pipettes, a flower template (in appendix) to place over the jar of coloured water, representing a flower filled with nectar.

The children learn about the process of making honey by acting as bees. They "fly" to the jar representing a flower filled with nectar, use a pipette to draw out the nectar, and then "fly" back to the empty jar, representing the honeycomb, where they deposit the nectar.

Children using pipettes to fill up a honeycomb with nectar.

Click **here** to view the entire activity.

Sandwich Making

Purpose:

- Separation of the 2 sides of the hand (In-hand manipulation)
- Thumb mobility and open webspace
- Finger isolation
- Develop hand dominance and bilateral hand co-ordination
- Crossing the midline

This activity provided a language learning opportunity where children read about and discussed the sizes and contents of various cans, then wrote about their observations. Their fine motor skills were also enhanced as they independently prepared their own lunches, cutting open bread rolls and spreading them with different toppings.

Click **here** to view the entire activity.

A child spreading bread with tomato paste.

Easter Garden

Purpose:

- Supination/pronation
- Palmar arching
- Separation of the 2 sides of the hand
- In-hand manipulation
- Thumb mobility and open webspace
- Finger isolation
- Bilateral hand integration
- Crossing the midline

The children worked together to make crosses by tying twigs with knots, recreating the scene of Golgotha. They also created an Easter garden with a representation of Jesus' tomb, inspired by an Easter story they heard. For more details, please follow this link.

Children assisting each other to make crucifixes.

Additional Activities

Pumpkins.pptm - These learning opportunities enhance fine motor skills, manual dexterity, hand-eye and physical coordination, precision, and accuracy.

Weaving – During a project exploring the past, a grandparent shared with the children how clothes were traditionally made using a weaving loom. Following this, the children had the opportunity to try their hand at weaving by practicing with paper. Click **here** for more details.

Activity Variations

Activity 1: Catch the pompoms away

Items needed: 5 pompoms, small thick paper (or kartoncin) – 10cmx10cm, bowl and tray
Activity: Take out the pompoms and put them on the tray. Tilt the bowl with the non-dominant hand. Hold the small paper with the dominant hand. Fan the paper to create wind and move the pompoms inside the bowl.

Activity 2: Tearing Paper

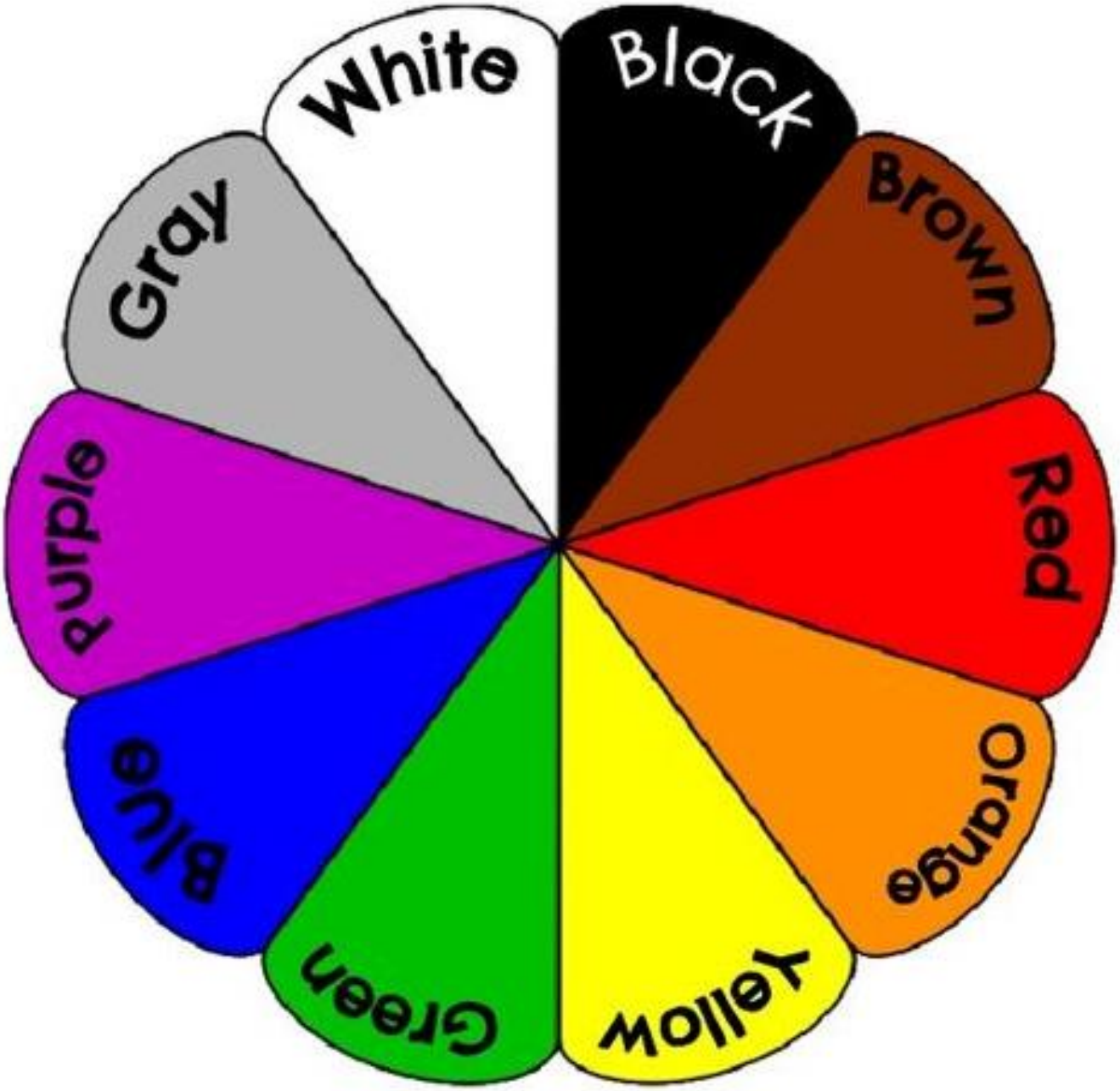
Items needed: A4 paper or large kitchen napkin
Activity: Put the paper/napkin on the table and use 2 hands to crumple and fold it down. Use both hands to form the paper/napkin into a ball. Pass the ball from one hand to the other. Open the paper/or napkin over the table as straight as you can. Tear the paper into 2 pieces using both hands together.
PS. This activity will help someone who still finds it very difficult to use scissors.

Activity 3: Fill-up the empty bottle

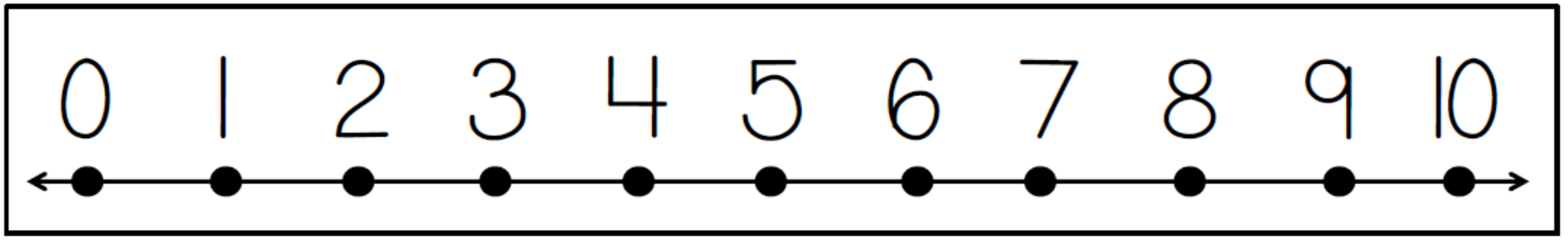
Items needed: Small plastic bottle, small crayons, and bowl
Activity: Ask student to unscrew the cap of the empty plastic bottle – ideally the bottle should have a narrow opening. Put the bunch of small crayons in the bowl. Keep the bottle with the non-dominant hand, and grab the crayons with the dominant hand to drop them in the bottle. Repeat whilst switching hands (non-dominant hand transfers crayons and dominant hand holds the bottle).

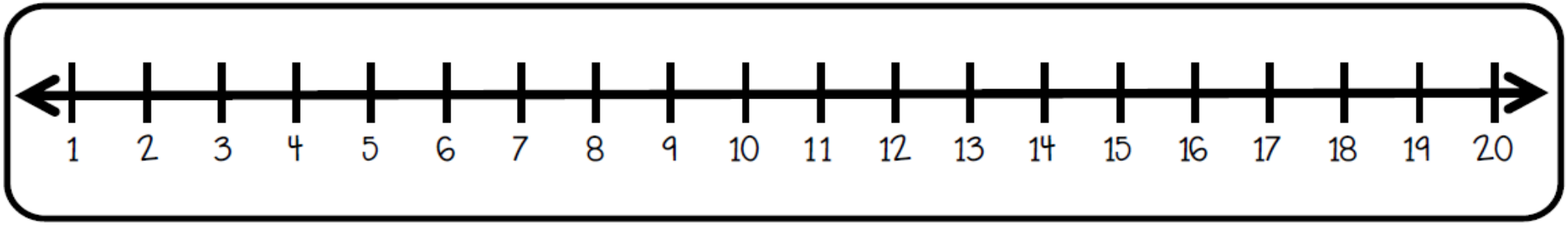
Appendix

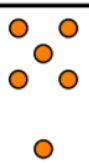
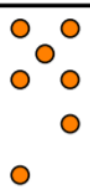
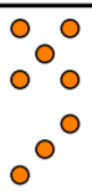
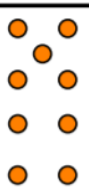
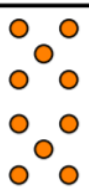
Colour Sorting Wheel



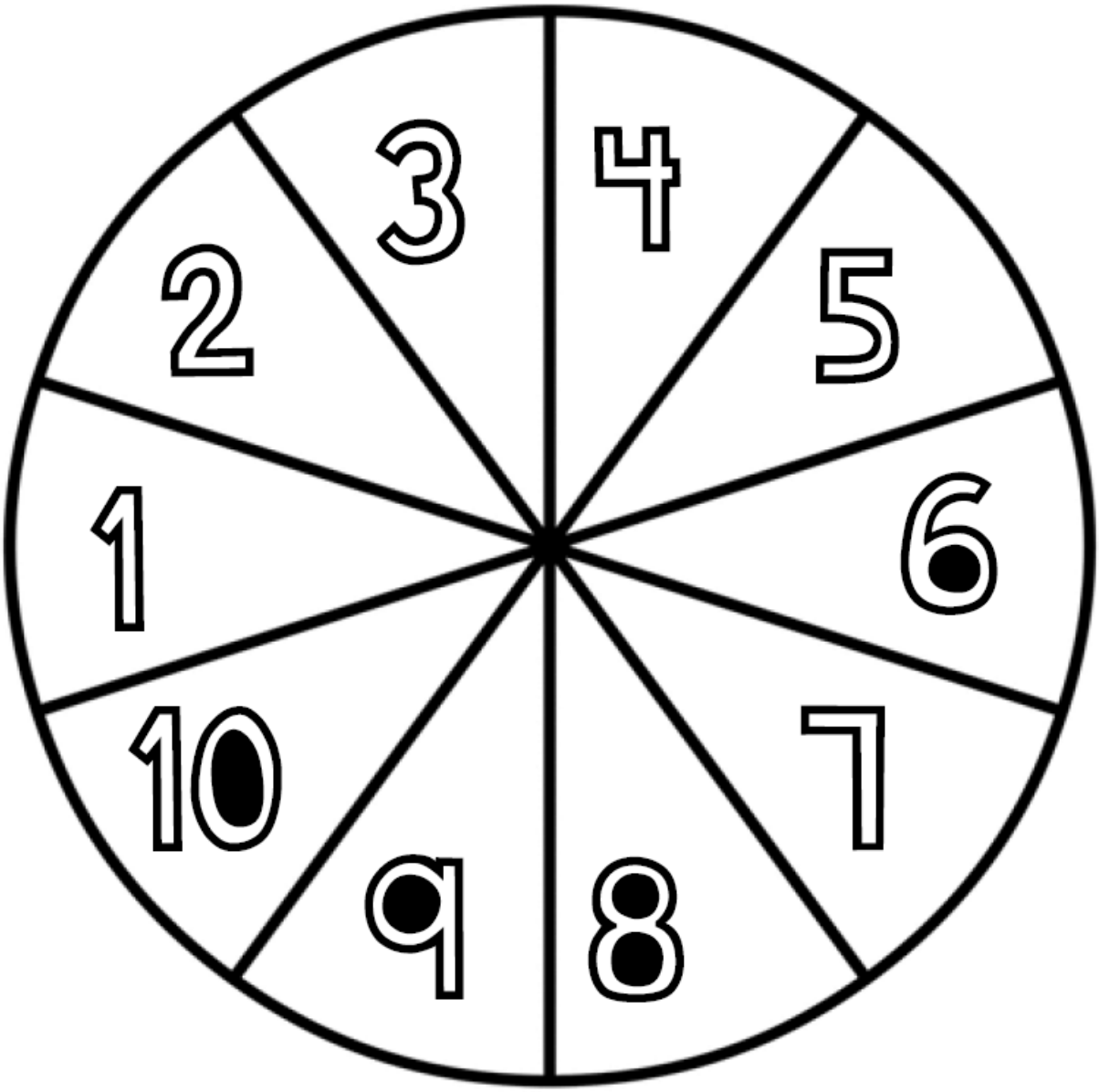
Number Line



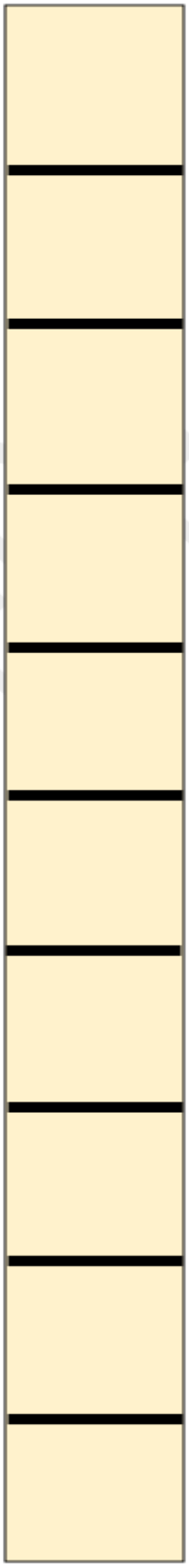


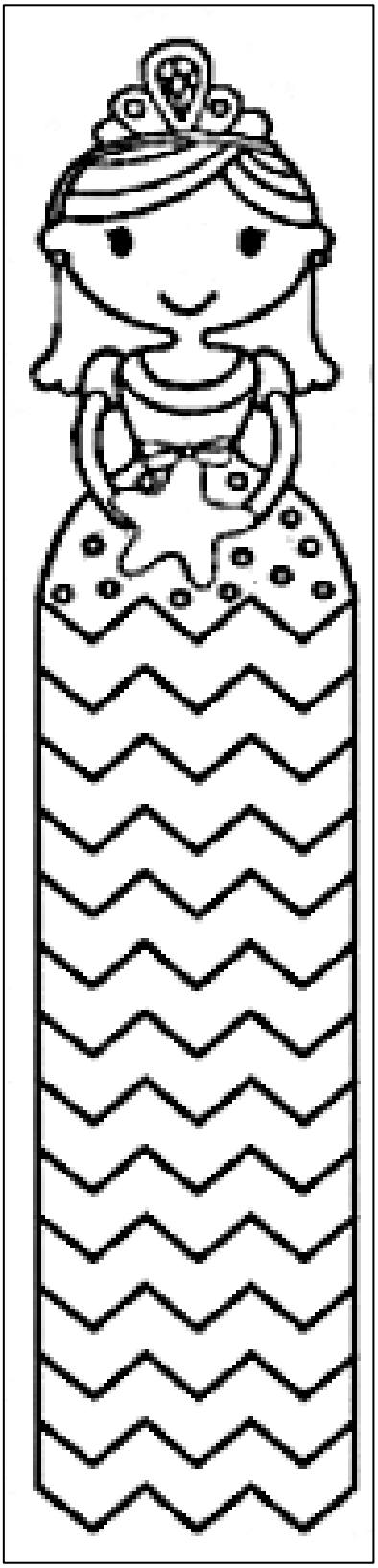
1	2	3	4	5	6	7	8	9	10
one	two	three	four	five	six	seven	eight	nine	ten
									

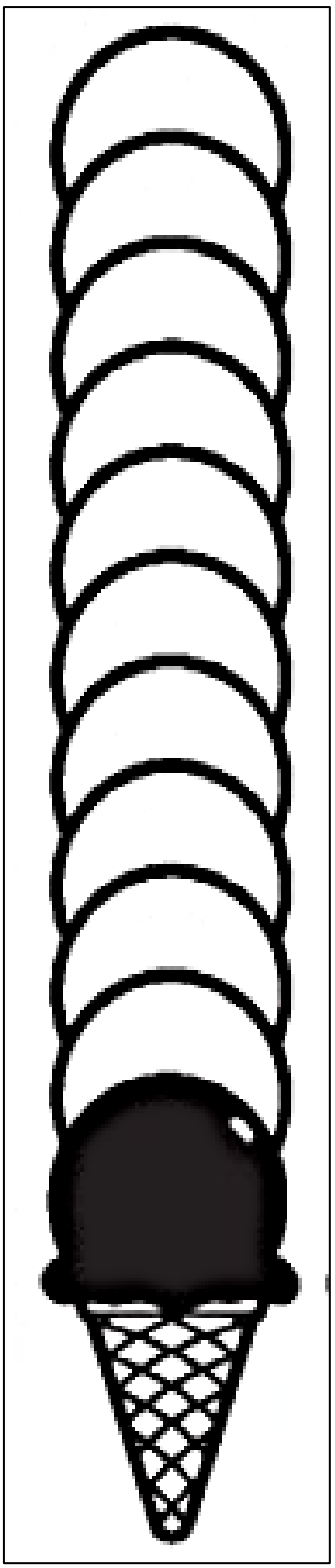
Number Sorting Wheel

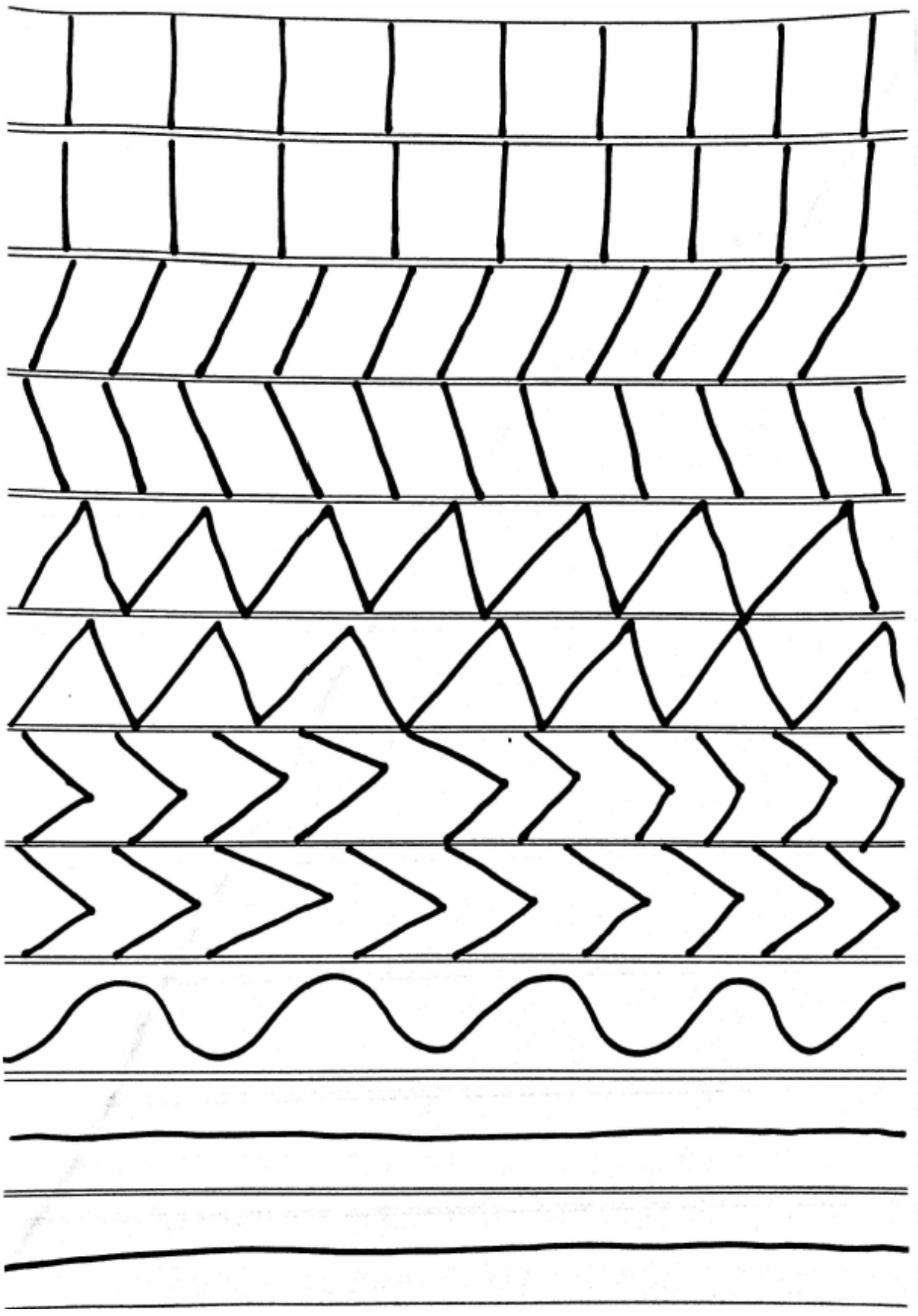


Snipping Paper Template

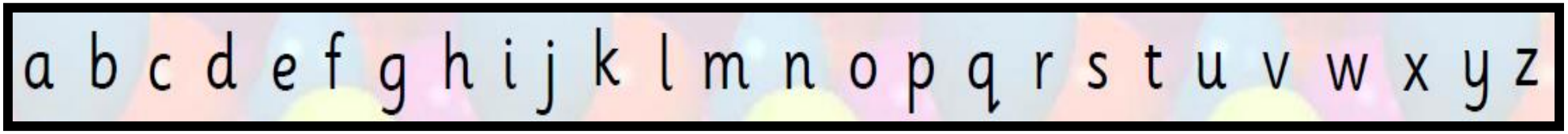








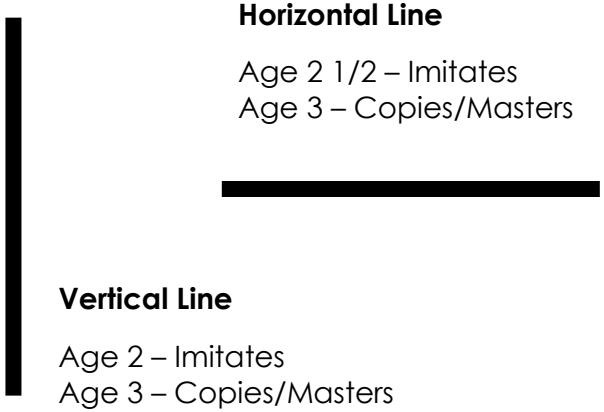
Alphabet Strip



Small / Big Sorting Template

Small	Big
	

Shapes Template

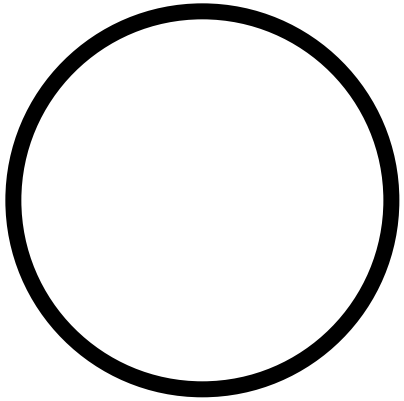


Horizontal Line

Age 2 1/2 – Imitates
Age 3 – Copies/Masters

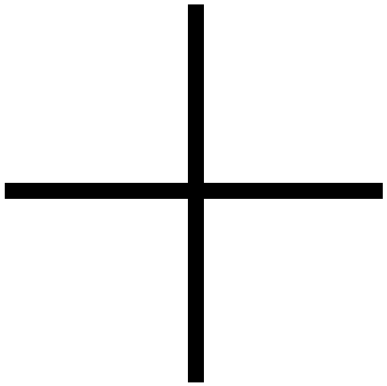
Vertical Line

Age 2 – Imitates
Age 3 – Copies/Masters



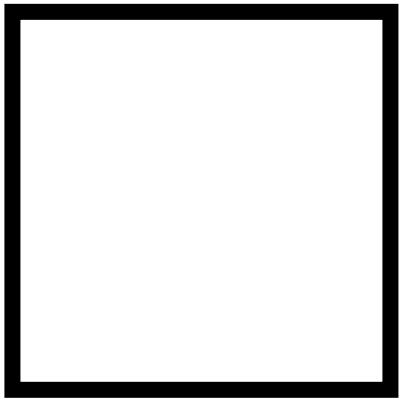
Circle Shape

Age 2 1/2 – Imitates
Age 3 – Copies/Masters



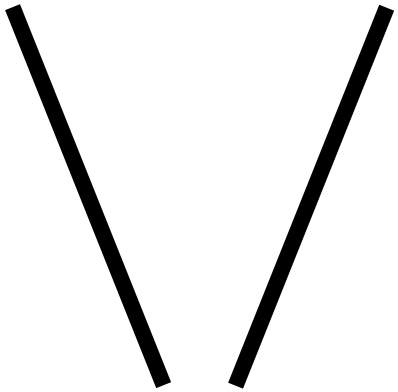
Cross Shape

Age 3 1/2 – Imitates
Age 4 – Copies



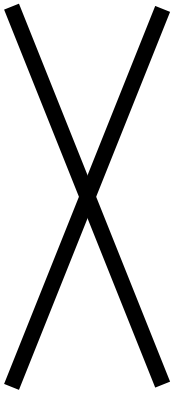
Square Shape

Age 4



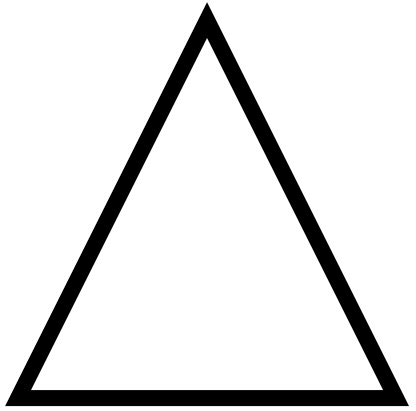
Right/Left Diagonal Lines

Age 4 1/2



"X" Shape

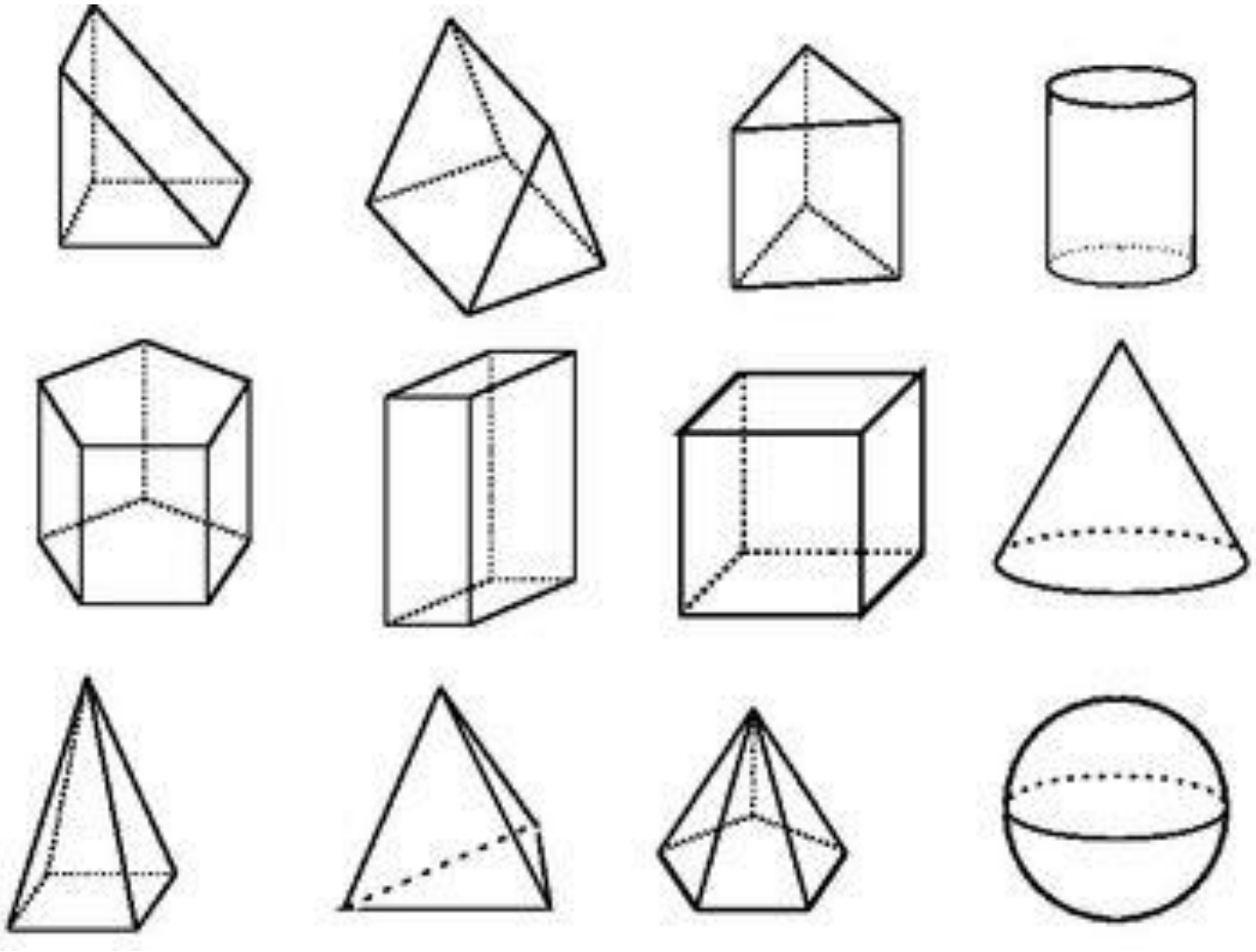
Age 5



Triangle Shape

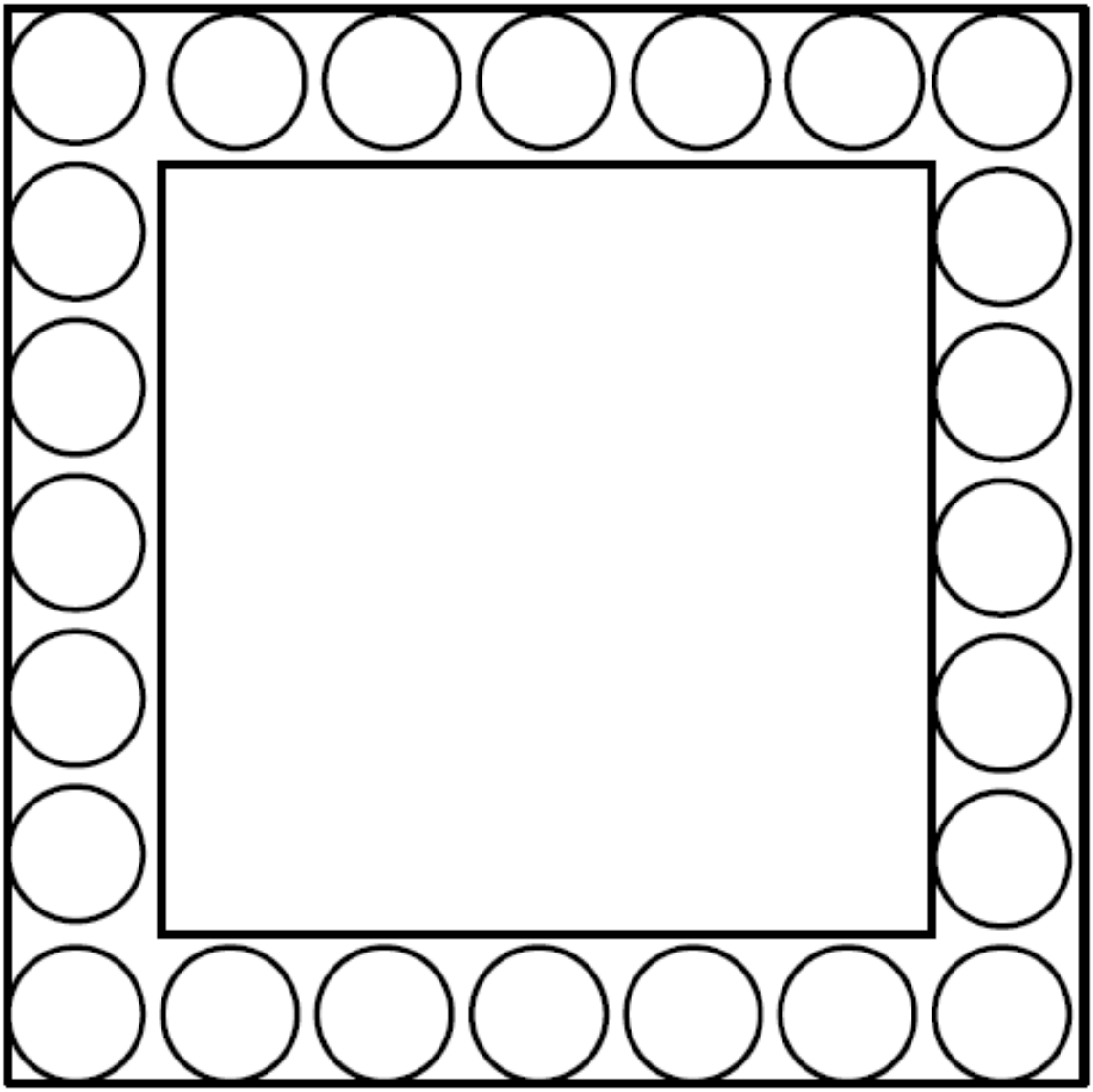
Age 5

Shapes 3D Template

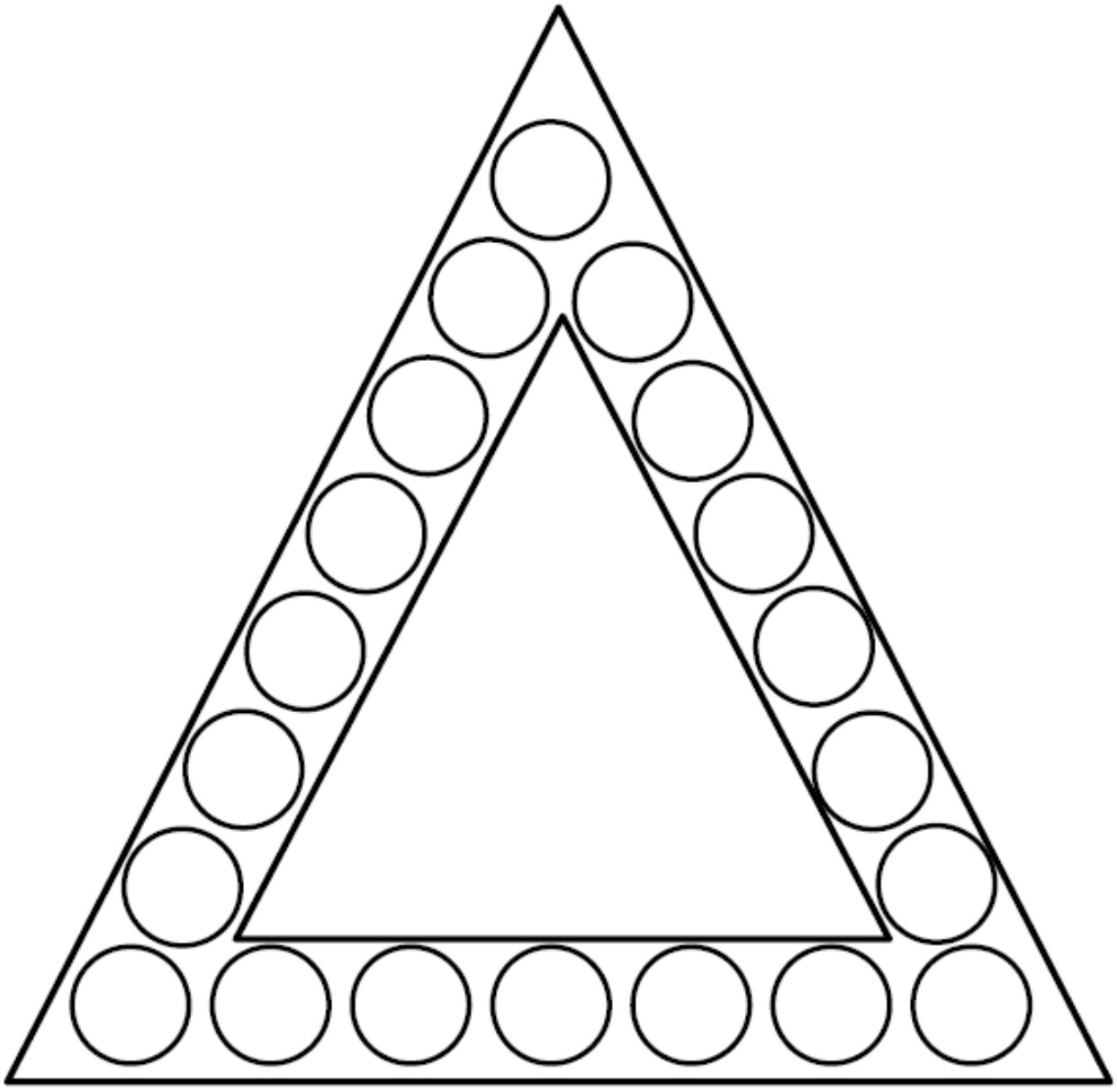


Dot-Painting Templates

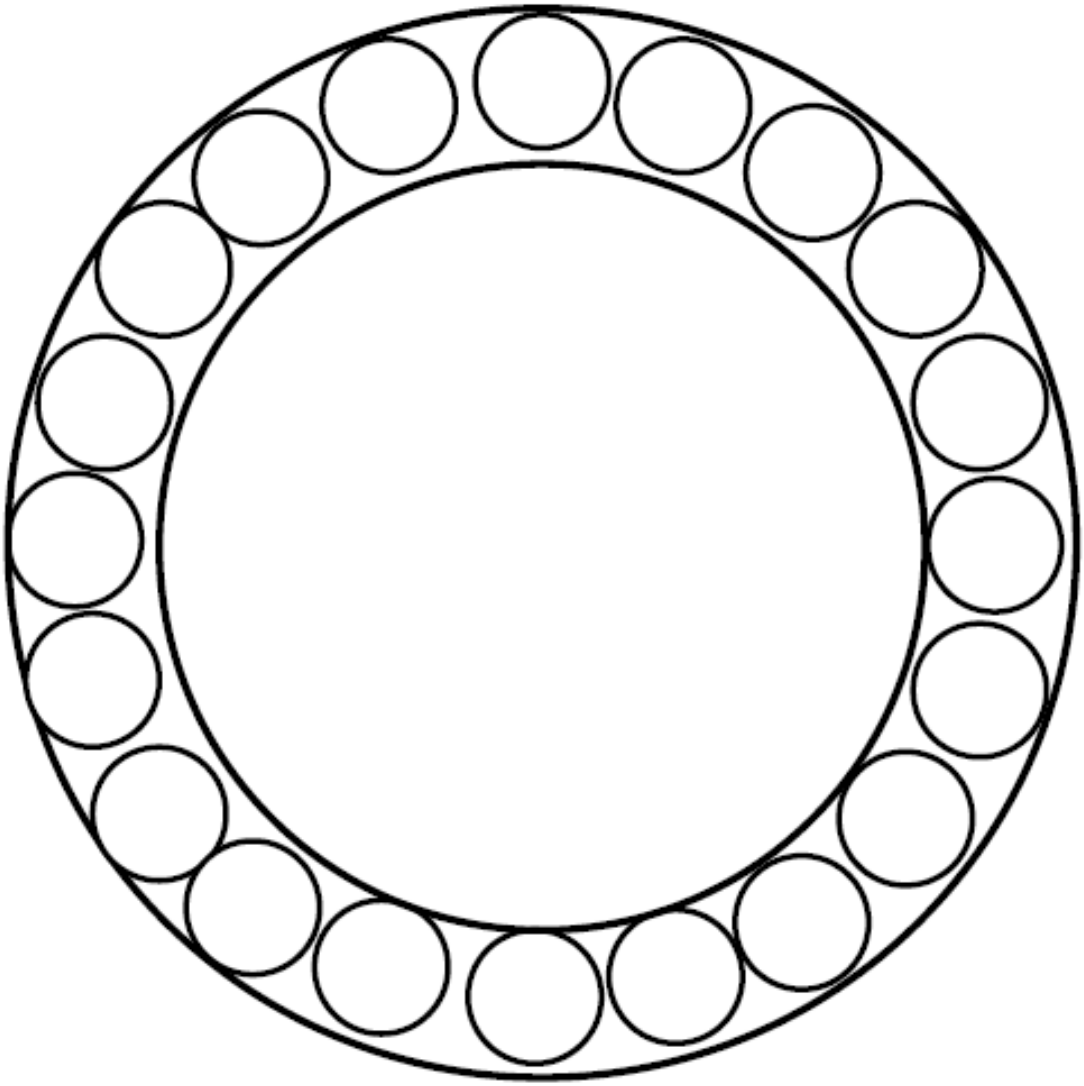
Square

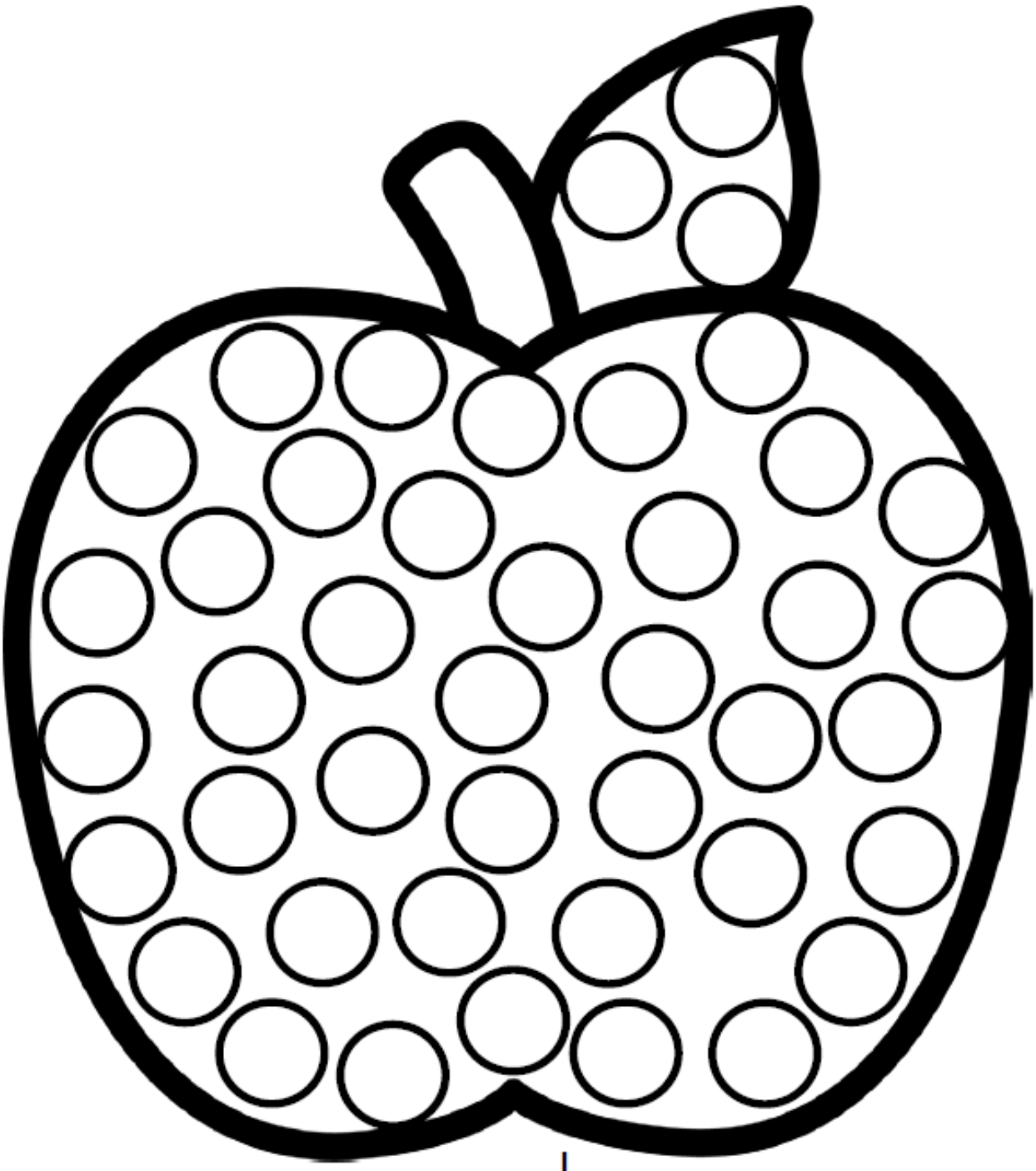


Triangle

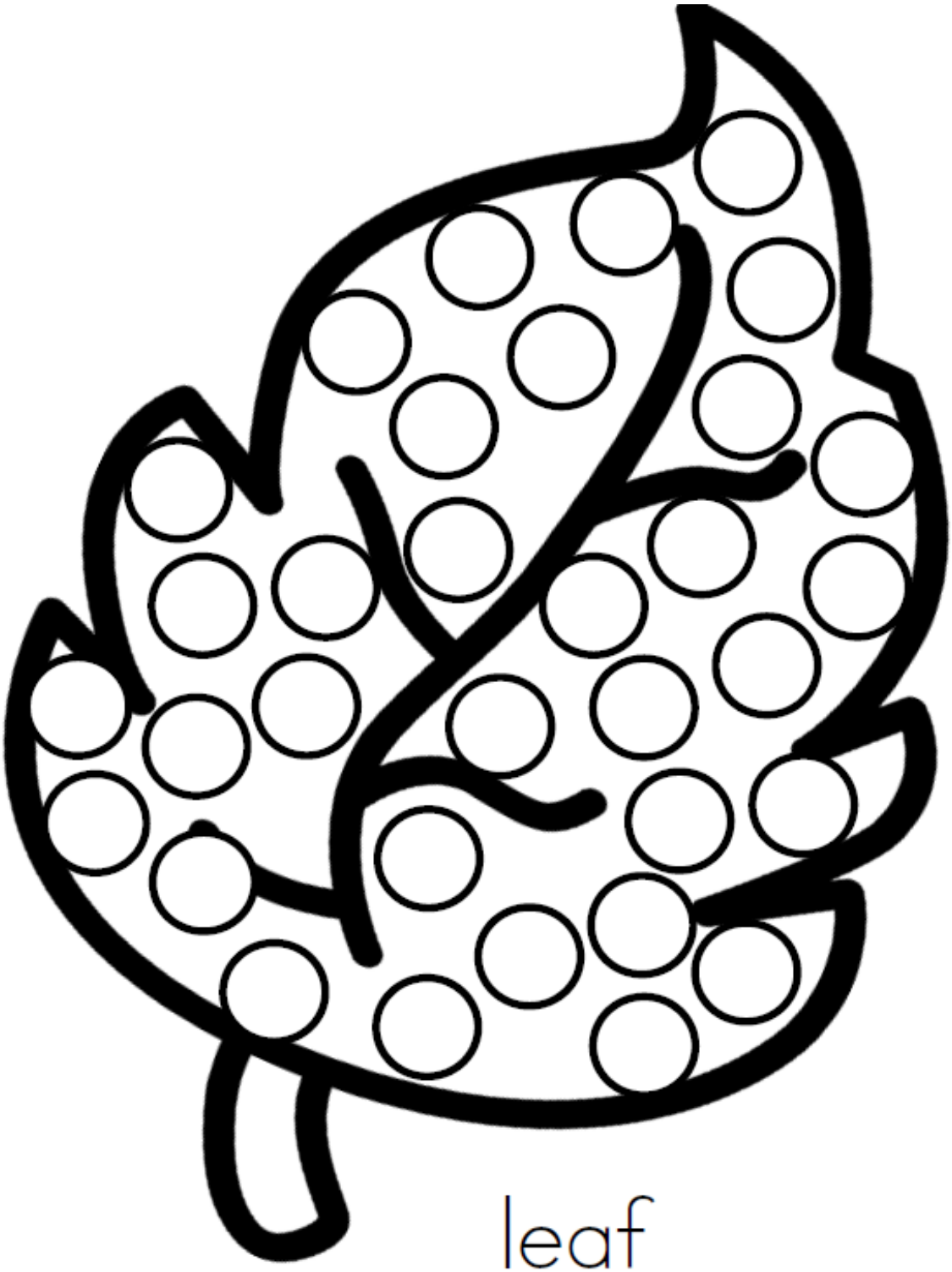


Circle

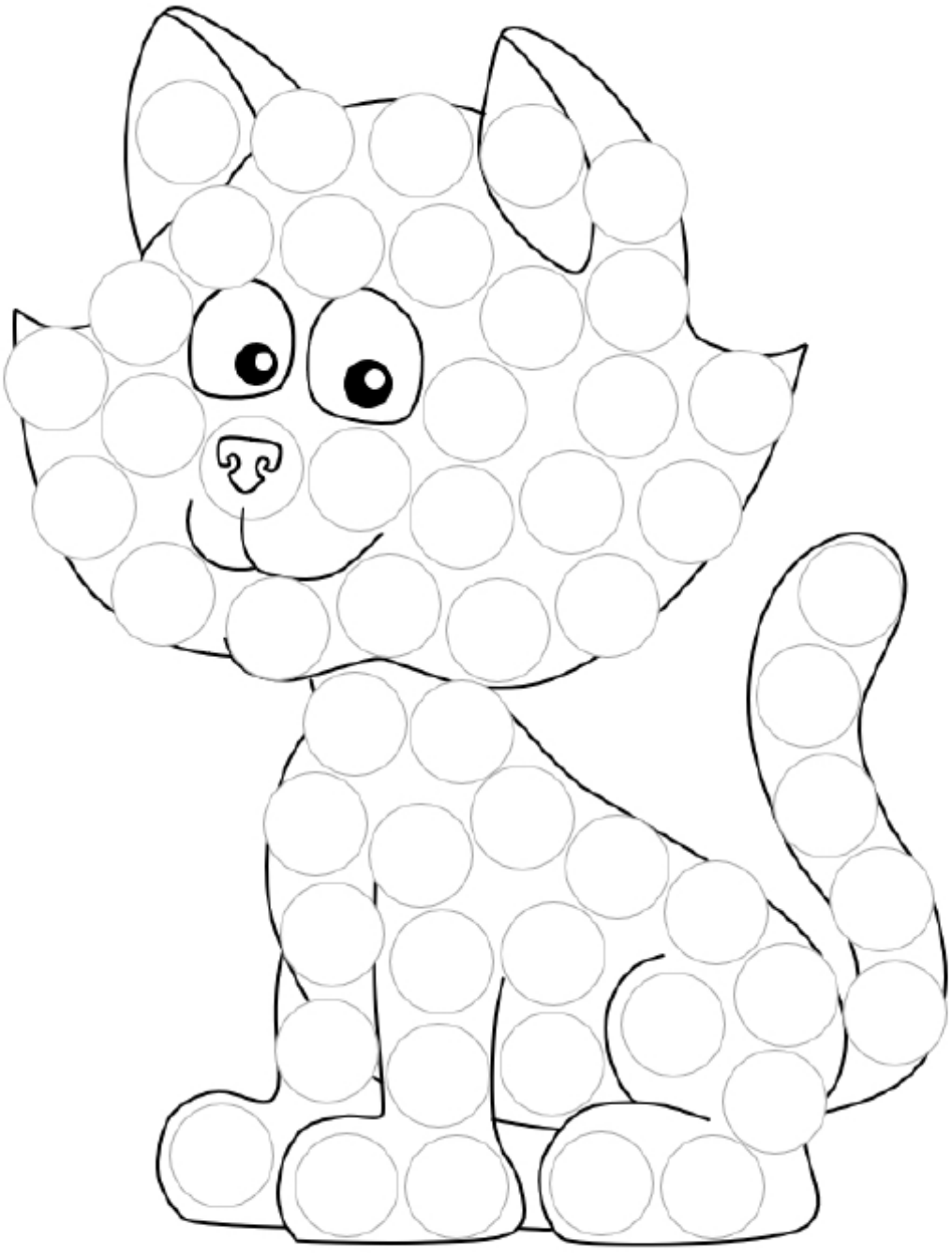


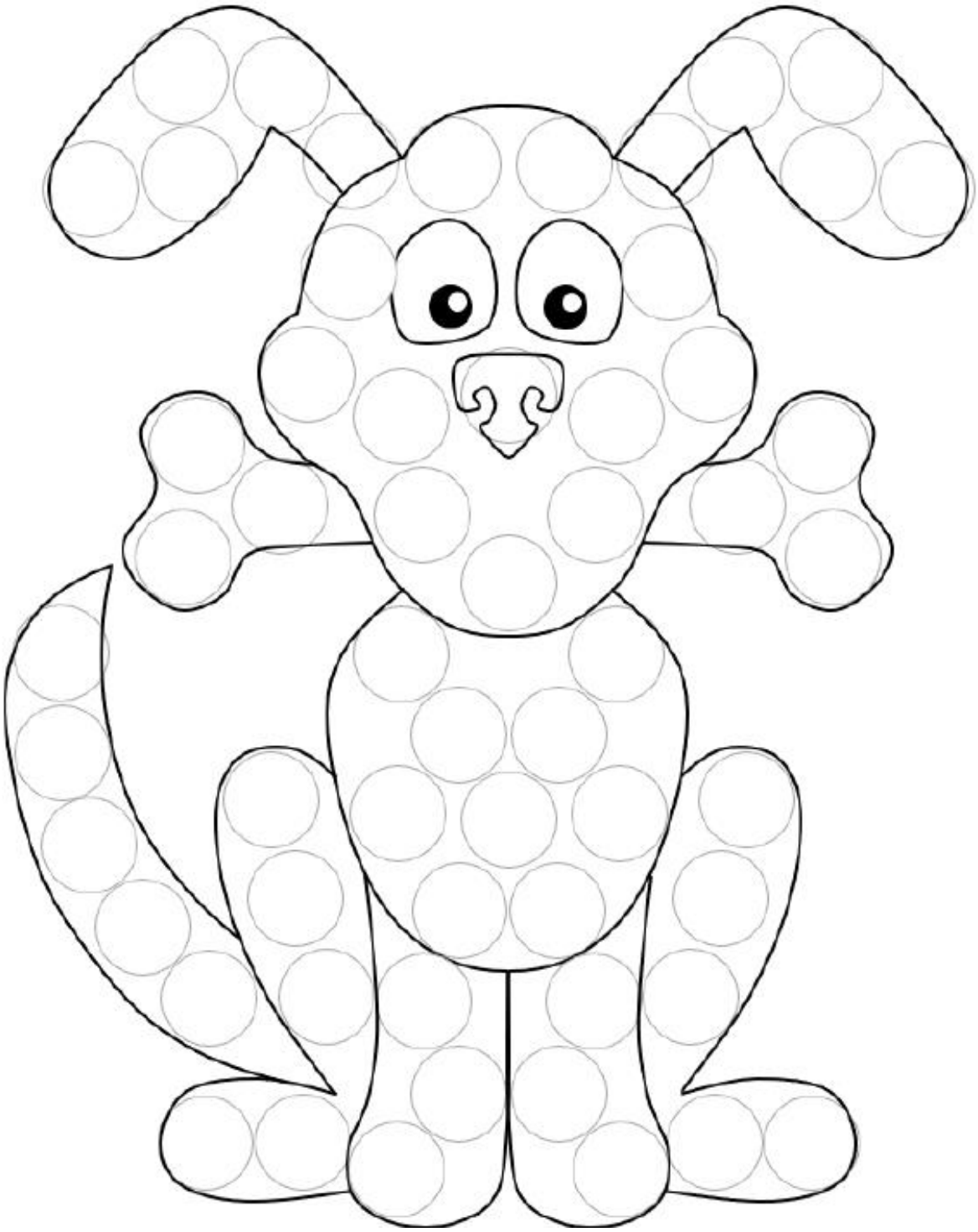


apple



leaf





Flower Template