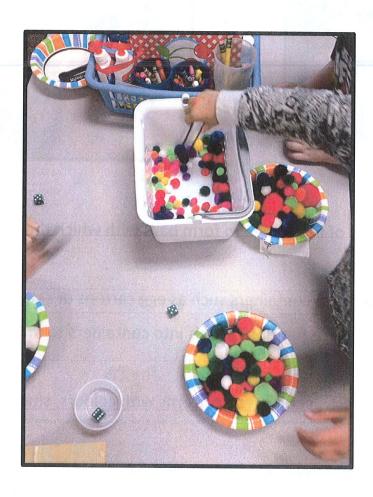
# A Balance Between Developing Fine Motor Skills And Early Numeracy Competencies



Adapted by Deanna Brajcich Numeracy Curriculum and Learning Coordinator Sooke School District # 62

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# **Fun-Dough Numeracy**





Children roll pieces of fun-dough to form balls with which they can:

- 1. Arrange colours into containers such as egg cartons or small cups
- 2. Roll, count and place fun-dough balls into containers to match the written number or dot-card labeled
- 3. Roll, copy or construct different patterns with colours, shapes and/or magnitude
- 4. Show sequencing in increasing or decreasing order by counting out balls

## 3

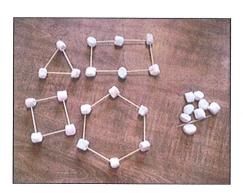
# **Clothesline Counting**





A string or ribbon can be hung between two items on which children will place numbered clothespins to show number sequencing. Children may also use clothespins to attach number cards, or dot cards to a clothesline in sequencing order for extra challenge.

# **Toothpick and Marshmallow Shapes**

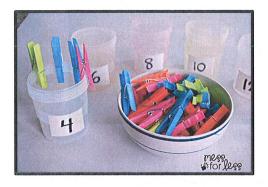


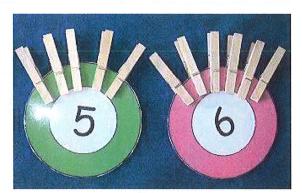
Using toothpicks and marshmallows (or even fun-dough), children can create many formations to show shape and space awareness

- 1. A child uses the marshmallow to connect toothpicks to form a regular 2d shape either copying a picture or after being orally instructed
- 2. A child can also connect to build 3d shapes to explore space and shape



#### **Clothes Peg Numbers**





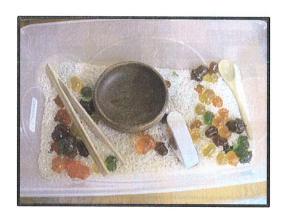
Using labelled or un-labelled containers children can demonstrate counting, sequencing and magnitude by placing clothes pegs in these containers or by pinning the clothes pegs.

- 1. Children will place the correct amount of clothes pegs by pinning the clothespins on the outside rim of a container labelled with a number
- 2. Children will place the correct amount of clothes pegs by pinning the clothespins on the outside rim of a container labelled with a dot-card either with regular patterned dots (like on a die) or dots placed in other manners (random or in a line or even in a ten frame)
- 3. Children can also use unlabeled containers to sequence an increasing or decreasing amount of clothes pegs.

## 8\_

#### **Treasure Hunt**



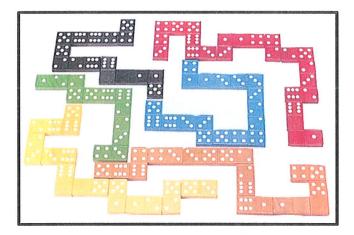


Children use spoons to 'dig for treasure' from a bowl full of items. These items can be the same or different; they can be large or small; they can be uniform in colour or varied. Varying the size of the bowl, the items and the receptacles in which they are placed will change the numeracy objective and/or the fine motor difficulty.

- 1. Place items in a bowl and have the child remove them in order to fill a receptacle with a set amount of items. This can be number labeled egg cartons, or small cups with either random magnitudes or increasing/decreasing labels.
- 2. Place different coloured items in a bowl and have the child sort by colour.
- 3. Place different coloured items in a bowl and have the child pull out certain colours to copy or create a pattern.
- 4. Place different sized items in a bowl and have the child pull out certain sizes to copy or create a pattern

#### 8

#### **Dominoes**



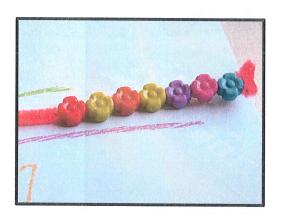
Dominoes have been used for decades to help support numeracy concepts. They are also great for fine motor development. Picking up, turning and placing.

- 1. Subitizing skills: children learn to match the pips on a domino with another in a group.
- 2. Sequencing skills: children learn to find domino sides that increase or decrease according to the number of pips.
- 3. Matching pips with the number symbol: children learn to match the number of pips with numbers that have been written on cards
- 4. With the use of small items, students can recreate the selected domino's pips on the table. This involves counting but also spacial awareness



# **Number Beading and Patterning**





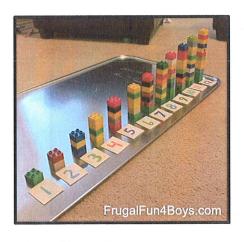
Using pipe cleaners and beads, children can improve fine motor skills while reinforcing key numeracy concepts.

Threading the beads onto the pipe cleaner, a child can:

- 1. thread the same number of beads as a number written on a card.
- 2. thread the number of beads matching the number word orally said to them
- 3. thread the number of beads in an increasing order using multiple pipe cleaners
- 4. copy or create her own pattern using colour, size or type of bead

#### 8

# **Count and Stack: Lego and Poker chips**



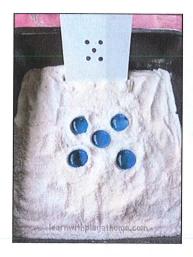


Stacking Lego or poker chips each involve different fine motor skills but both can be easily used to show an understanding of magnitude of number. They can also be used to show patterning.

- 1. Using lego or poker chips the child counts and stacks the correct amount to match a number card, a dot-card or a number orally told to the child
- 2. The child may also show sequencing of number magnitude by counting and stacking lego or chips representing an increasing or decreasing amount.
- 3. Poker chips are great for many math activities as they can be labeled to count or to sequence.

#### 8\_

#### **Salt Tray Exploration**





Using a shallow tray of any sort, pour an adequate amount of salt into the tray to cover the entire bottom with at least 1/2 a centimetre of salt. Children will use a large pen-like implement or their fingers to trace in the sand.

- 1. Children look at a card, which can be placed at the end of the tray, and copy the number printed on the card.
- 2. Children look at a card with a dot-pattern and copy the pattern to represent the number of dots.
- 3. Children look at a card with a dot-pattern, (like on a die), and trace out the number represented by how many dots they see. They will gradually recognize the organized pattern of the pips on dice.
- 3. Children can look at a card with dots and count the dots in order to trace the amount as a number in the salt

#### **Golf Tee Number Balance**

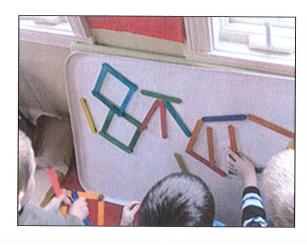


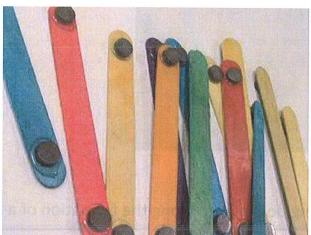


Using styrofoam, a florest 'frog', sturdy sand or any other material that will hold a golf tee and marble firmly, children can place golf tees and balance a marble on top to show understanding of magnitude and counting. The balancing offers extra challenge as they must have the golf tee placed properly in order for it to hold the marble.

- 1. Children see a number on a card and place the same number of tees into the florest 'frog' to represent the same amount. They then balance the marbles on each of the golf tees as they go for greater challenge.
- 2. Children see a dot-pattern (like on a die), and represent the same amount as above in number 1
- 3. An adult tells a child orally which number to represent as above.

# **Magnetic Craft Stick Number and Shapes**





Craft sticks are easily made magnetic by either placing sticky magnetic tape on the centre back or by hot-gluing small magnets onto the back. These can then be used anywhere in the house or on white boards where the surface is magnetized.

- 1. Children can create shapes either by copying a shape or by being asked orally to create the shape
- 2. Children can create their own irregular shapes exploring spacial skills
- 3. Children can use the magnetic craft sticks to show magnitude of a number either written, dot-carded, or orally told to them.
- 4. Children can show sequencing of amounts by showing an increasing or decreasing order of sticks

#### **Dotted Numbers**



Using dots placed along the formation of a number symbol allows children to become more intimate with the shape. By using a matching number of dots corresponding to the 'how many' of the number, the idea that number represents a quantity will be reinforced. Placing or balancing items onto these dots marrys the numeracy concept with fine motor skills.

- 1. Children place small objects on the dots to count outloud and associate the number with how many
- 2. A child can be asked by someone else to find "which one has three dots" which would also reinforce the magnitude of the number"
- 3. A child can be given the numbers without the dots in order to place the correct number of items corresponding to the number symbol.
- 4. When moving to teen numbers, the child will place ten items on the number one and then items on the other number in the ones place. This will reinforce the 'group of ten' needed to create the teen number