



VIRTUAL CHILDCARE  
PARENT SUPPORT  
SERVICES

VOLUME #207  
EMPOWERING LEARNING  
THROUGH SCIENCE EXPLORATION

**HELLO PARENTS,**

Science is an excellent venue to empower learning and develop divergent thinking from an early age. As parents and educators, we can promote our children's creative and critical thinking through engineering, a component of science. Tapping into curiosity by allowing children to ask questions about the world around them, supports the development of essential success skills. In this newsletter, we offer activities that will engage your child in science using everyday materials and help them promote scientific thinking and exploration.

**ACTIVITIES**

**INFANTS (3 – 18 MONTHS)**

**LOOK AT ME**

**MATERIALS:**

- Shatter-proof mirror

**DIRECTIONS:**

- Prop a mirror securely against a wall or crib at your child's level.
- Sit with your child on your lap as you both face the mirror, and make different expressions and see if they react.
- Talk about what you both see in the mirror, for example, eyes, nose, mouth, or expressions.
- Sing songs facing the mirror, say rhymes, play peek-a-boo, etc. to get them used to using the mirror.
- Touch and name parts of your child's body. They would not know the words yet, but would be able to connect what they feel with what they see.
- Encourage your child to go to the mirror independently throughout the day.

[Click here](#) for more activities.

**TODDLERS (19 MONTHS – 2.5 YEARS)**

**BOOM, BOOM**

**MATERIALS:**

- Tennis ball
- Wagon

**DIRECTIONS:**

- Put the ball in the middle of the wagon bed.
- Encourage your child to pull or push the wagon forward.
- As the wagon moves, the ball will hit the back of it making a "boom" or "bang" sound.
- Talk to your child about the movement and the sound.
- Reset the ball and repeat.

[Click here](#) for more activities.

**PRESCHOOLERS (2.5 – 5 YEARS)**

**MAGNETIC DISCOVERY BOTTLES**

**MATERIALS:**

- [Mineral oil](#) or baby oil
- Strong magnets
- Nuts and washers
- Paper clips
- Pipe cleaners
- Duct tape
- Scissors
- 3 plastic water bottles

**DIRECTIONS:**

- Show your child how to cut pipe cleaners about an inch long, and place them into the first bottle.
- Ask them to add nuts and washers into the second bottle and paper clips into the third.
- Help them to fill up three bottles with baby oil to 2/3 or 3/4 of the bottles.
- Together, close the lids tight and secure them with duct tape to prevent lids from opening.

- Use a strong magnet to move around objects in the bottles.
- [Click here](#) for more activities.

**JK/SK (4 – 6 YEARS)**

**DIRTY COINS EXPERIMENT**

**MATERIALS:**

- Dirty coins
- White vinegar
- Water
- Salt
- Plastic bowls
- Paper towels
- Plastic spoons

**DIRECTIONS:**

- Pour 1/4 cup of vinegar into a bowl along with a teaspoon of salt.
- Put same amount of water into another bowl.
- Drop a dirty coin into each of the vinegar mixture and water bowl, and allow them to sit for about a minute.
- Remove the coins from the bowls with plastic spoons and wipe with damp paper towels.
- Have your child observe what happens to the coins: are they still dirty or are they clean?
- Introduce the word "acid" to your child, and tell them that vinegar is an acid and removes dirt when it is mixed with salt.

[Click here](#) for more ideas.

**SCHOOL-AGERS (6 – 12 YEARS)**

**OIL AND WATER**

**MATERIALS:**

- Cotton balls
- A clear container, such as a vase or tall glass jar
- Water
- Vegetable oil
- A small dish

**DIRECTIONS:**

- Before starting the experiment, make a prediction: what will happen if cotton balls are put in the water?
- Place one or two cotton balls in the water and observe what is happening.
- Discuss with friends or family members why the cotton ball is floating at first, and then sinking later.
- Pour some oil into a small dish. Make another prediction about what will happen when the cotton ball is dipped into the oil and then placed in the water.
- Investigate why the cotton ball floats and sinks in different types of liquid, such as water and oil.

[Click here](#) for more ideas.



Immigration, Refugees  
and Citizenship Canada

Immigration, Réfugiés  
et Citoyenneté Canada

**A TIP FOR TODAY**

- Nurture your child's sense of wonder and excitement about the natural world.
- Encourage your child to ask "what?" and "why?" questions. For example: "what do plants eat?", "why is the sky blue?" etc.
- Get motivated to conduct simple science experiments at home.
- Motivate your child to learn from real-life scenarios.