



Young children naturally build knowledge by being curious about the world around them.

Science World celebrates Green Month every year around Earth Day (April 22). Children are very aware of the environmental issues that face our planet. The whole family can get involved in these projects that help reduce waste and create value out of reused objects.

How to get most out of your explorations:

- **Dress for the mess**
Science explorations can be messy.
- **Take your time**
Play for as long as the activity holds your child’s interest. Don’t rush towards the “right” answer.
- **Be curious**
Ask “what would happen if…” and then find out. Let your child’s questions guide you.

Worm Composter

Can a compost bin cut down on the amount of garbage in your house? Watching worms at work lets us appreciate how they aerate and fertilize the soil.

What you need

- Plastic bin with a lid
- Drill
- Newspaper
- Spray bottle
- Soil
- Worms*
- Food scraps (fruits, vegetables and coffee grounds)

* The best worms for compost are known as red wigglers. For a worm supplier near you, consult this list: cityfarmer.org/wormsuppl79.html#wormsupplies or call the GVRD compost hotline at 604.736.2250

Cognitive Skills

- Language
- Creativity
- Problem solving
- Cause and effect

What to do

1. With adult supervision and assistance, use a drill to make holes in the top of the lid. These will provide sufficient air for the worms.
2. Place the soil in the container and then add the worms. They will move to the area where they feel the most comfortable.
3. Place a few scraps of food in the container.
4. Cover with newspaper cut into 1 inch long strips. Mist lightly.
5. Move the container to a dark place as worms are light sensitive.
6. Periodically, add scraps and newspaper strips. The rich brown soil produced by the worms makes wonderful fertilizer.

Key Questions

- After a few days inspect the bin.
- What happened to the scraps that were there?
- Which foods do the worms prefer?

Getting more serious with your worm bin? Try these resources:

metrovancover.org/about/publications/Publications/wormcompostbrochure.pdf

Worms Eat My Garbage
by Mary Appelhof
(ISBN-10: 0977804518)

Extensions

- What other items can you add for your worms?
- Visit a farm and find out what the farmers do with worms.



Young children naturally build knowledge by being curious about the world around them.

Science World celebrates Green Month every year around Earth Day (April 22). Children are very aware of the environmental issues that face our planet. The whole family can get involved in these projects that help reduce waste and create value out of reused objects.

How to get most out of your explorations:

- **Dress for the mess**
Science explorations can be messy.
- **Take your time**
Play for as long as the activity holds your child’s interest. Don’t rush towards the “right” answer.
- **Be curious**
Ask “what would happen if…” and then find out. Let your child’s questions guide you.

Recycled Head Planter

Make a fun planter from recycled materials and watch as the “hair” grows.

What you need

- Tin Can
- Soil
- Pea seeds
- Radishes or pole beans
- Water
- Construction paper and other decorating materials

What to do

1. Have an adult ensure that the opening of the can is smooth and safe to work with.
2. Decorate your tin can with a nose, mouth and eyes.
3. Put soil in the can (about ¾ full).
4. Add seeds (follow planting directions on the package).
5. Water the seeds and watch the “hair” grow. Check your plants daily to make sure the soil stays moist.

Key Questions

- What makes a tin can a good planter?
- What else could we make from a tin can?
- What other containers would make good planters (e.g. egg shells, chipped cups, old shoes, milk containers)?

Extensions

- Draw your plants every couple of days or take photos to record how they grow. Older children can measure the height of the plants or compare the growth of the plants with plants that use worm-compost fertilizer.

More recycled projects

- Cover a thick phone book with a brown paper bag to make a simple booster seat for a kitchen chair. Decorate it with crayons or stickers.
- Use the plastic rings from six-packs of pop or plastic berry baskets as bubble makers.

Literature for Children

It’s Earth Day! by Mercer Mayer
(ISBN-10: 0060539593)

Biscuit’s Earth Day Celebration by Alyssa S. Capucilli
(ISBN-10: 00661625140)

Earth Day—Hooray! by Stuart J. Murphy
(ISBN-10: 0060001291)

Websites

pbskids.org/sid/cleanup.html

http://www.sesamestreet.org/play#media/video_0a45c84f-7a0d-42d5-9a05-d76fd3c4829c

sesamestreet.org/play#media/video_4493a236-2579-4f23-9f71-8edo8181dcbo

sesamestreet.org/playlists#media/playlist_166

pbskids.org/martha/stories/truestories/soupcan_story.html



Young children naturally build knowledge by being curious about the world around them.

Science World celebrates Green Month every year around Earth Day (April 22). Children are very aware of the environmental issues that face our planet. The whole family can get involved in these projects that help reduce waste and create value out of reused objects.

How to get most out of your explorations:

- **Dress for the mess**
Science explorations can be messy.
- **Take your time**
Play for as long as the activity holds your child’s interest. Don’t rush towards the “right” answer.
- **Be curious**
Ask “what would happen if...” and then find out. Let your child’s questions guide you.

Rainwater Cistern

In Vancouver, we get the most rain in the winter and use the most water in the summer. If it is a dry summer, you can collect rain water and use it to water your plants. Think about how you will be saving water by not using the hose!

What you need

- Plastic container
- Net to cover the top of the container

What to do

1. Purchase or reuse a plastic container.
2. Stand it outdoors. Find a place where it won’t fall over and where children and pets won’t fall in! If you have a downspout from the roof, you can put the container under the spout to catch even more water.
3. Add a mesh cover or net to keep mosquitoes from getting in the container.
4. Only use the water for watering plants and gardens.

Key Questions

- Where can we put the container to collect the most water?
- How does collecting rainwater help us and the planet?
- Is there anything that you would change about your container?

Extensions

- Measure the amount of water in the container after light or heavy rain.
- Visit a garden shop and ask how they save water.
- Put a bucket in the bathtub when you have a shower, to collect extra water—this water is also good for plants!



Young children naturally build knowledge by being curious about the world around them.

Science World celebrates Green Month every year around Earth Day (April 22). Children are very aware of the environmental issues that face our planet. The whole family can get involved in these projects that help reduce waste and create value out of reused objects.

How to get most out of your explorations:

- **Dress for the mess**
Science explorations can be messy.
- **Take your time**
Play for as long as the activity holds your child’s interest. Don’t rush towards the “right” answer.
- **Be curious**
Ask “what would happen if…” and then find out. Let your child’s questions guide you.

Recycled Sculpture

Using your imagination to create things is fun! Reuse the contents of your recycling box by turning the contents into sculptural art.

What you need

- Paper towel rolls
- Toilet tissue rolls
- Plastic containers
- Plastic lids
- Plastic bottle tops
- Tape
- Scissors
- Glue
- Stickers and other decorating supplies

What to do

1. Dream up an idea for your sculpture. Need inspiration? Check the Vancouver Biennale website www.vancouverbiennale.com
2. Make sure that all items are clean and ready for use (beware of sharp edges on tins).

3. Attach and assemble your recycled objects. Be sure to let an adult know if you need assistance with your construction.
4. Decorate your sculpture and put it on display.

Key Questions

- What kind of sculpture would you like to make? Is it a tall tower? A house for a mouse? A space station? A creature?
- How can you attach these things together?
- What shapes do you see in these objects?

Extensions

- Take photos of your child’s sculptures (and other artwork). Make a calendar from the photos as a gift for friends and relatives.
- Make a miniature garden cart using the scoop from laundry soap. Make a pattern for 2-inch wheels and let the kids trace and cut it out. Add lines for wheel spokes. Glue the wheels to both sides of the cup (open end facing up). The handle is the wheel barrel handle! Next, put dirt in the wheel barrel. Plant any flower you like (geraniums do well).

Literature for Children

Sid the Science Kid: Earth Day Fun by Jennifer Frantz (ISBN-10: 0061852600)

Kids Container Gardening: Year-Round Projects for Inside and Out by Cindy Krezel and Bruce Curtis (ISBN-10: 1883052750)

Recycled Crafts Box by Laura C. Martin (ISBN-10: 1580175228)

Funky Junk: Recycle Rubbish Into Art! by Gary Kings, Richard Ginger and Barry Green (ISBN-10: 048649022X)

Websites

peepandthebigwideworld.com

scienceworld.ca/preschool

pbskids.org/curiousgeorge/games/everything_must_go/everything_must_go.html