

GLOSSARY

AEROBIC: In the presence of oxygen.

ALUMINUM: A lightweight, nonrustable metal, commonly used to make soda cans, airplane bodies, and frames for lawn chairs.

ANAEROBIC: In the absence of oxygen.

ANTIQUe: An object that was made in an earlier period of history, and may have special value because of its age.

ASH: In combustion, solid residue which remains after waste has been completely burned.

BACTERIA: A division of spherical, spiral, rod-shaped, or comma-shaped microscopic organisms. Some bacteria are responsible for such processes as fermentation and decomposition; others cause diseases such as pneumonia.

BAUXITE: A rock in which aluminum is found in high concentrations.

BIODEGRADABLE: Able to be broken down by microorganisms into simpler forms.

BOTTLE BILL: A law requiring that the price of a beverage container includes a refundable deposit. The deposit (usually 5 cents) is returned to the consumer when the container is returned to the retailer.

BULK QUANTITIES: Food or other products that are sold unpackaged or in large containers so that consumers can buy them in large amounts, thus minimizing packaging waste.

BURNING: Destroying or breaking down by fire; undergoing combustion.

CARBON DIOXIDE: A heavy, colorless, odorless gas, present in the atmosphere or formed by the burning of fuels containing carbon. Carbon dioxide is also exhaled by animals and used by plants in photosynthesis.

CARDBOARD: A thin, stiff material made of paper pulp, and used in making cartons and other forms of packaging.

CAUSTIC: The property of one substance that enables it to burn, corrode, or dissolve another substance by chemical reaction.

COMBUSTOR: Facility for controlled burning of municipal solid waste to reduce its volume and weight, and, commonly, to produce energy.

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COMMINGLED: A mixture of any number of recyclable materials, which usually must be separated before they can be recycled.

COMMUNITY: A group of people living in the same place and sharing the same government.

COMPOST: A rich, soil-like mixture that is produced when organic materials, such as yard, garden, and kitchen wastes, break down. *The decomposed organic material resulting from the composting process and used to enrich or improve the consistency of soil for growing.

COMPOSTING: Using nature's natural process to turn food waste and other organic materials into a useful soil or humus.

COMPOSTABLE: Able to biodegrade, or break down when exposed to microorganisms under the right environmental conditions.

CONSERVATION: The wise use of natural resources, to minimize their loss and waste.

CONSUMER DEMAND: The persuasive power the buyer of goods exercises on manufacturers by choosing certain products over other ones.

CONSUMPTION: The using up of products and resources by consumers.

CONTAMINATE: To make impure or unsafe by contact with potentially harmful substances.

CORRUGATED: Cardboard made up of several layers, including a middle layer that is bent into a series of ridges and grooves with air spaces in between.

COST: The price of something; the amount paid.

CULLET: Clean, generally color-sorted, crushed glass used to make new glass products.

DECOMPOSE: To rot, or break down.

DECOMPOSITION: The process by which a substance is broken down into component parts or basic elements. Food and other plant and animal matter decompose under the proper conditions of light, air, and moisture.

DEGRADE: To break down into simpler chemical forms.

DEPARTMENT OF SANITATION: The organization in a city or town responsible for the management of municipal waste.

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DISPOSABLE: Meant to be thrown away after a single use or a few uses, rather than to be saved and reused many times. Designed to be thrown away after one use or after a limited period of time.

DURABLE: Made to last for a long time. *Capable of withstanding long use, wear, and decay.

EARTH: The planet on which we live, composed of oceans and land masses and surrounded by an atmosphere of gases. Also, the land surface of the world.

ECOLOGICAL PACKAGING: A container or protective wrapping for a product that is not toxic and requires little energy and few natural resources for its manufacture. Its disposal also does not produce excessive waste, either in amount or toxicity.

ECOSYSTEM: A system made up of a community of living things together with their environment. *A system made up of a community of living things and the physical and chemical environment with which they interact.

EFFICIENCY: The quality of acting or producing effectively with a minimum of waste, expense, or unnecessary effort.

FIBERS: The long, thick-walled cells that give strength and support to plant tissue. The fibers of wood and cloth are used in making paper.

FILTER: A material with tiny holes, or pores, through which a liquid or gas is passed to remove impurities or potentially polluting substances.

FUELS: Substances that are consumed to produce energy, such as wood, coal, gas, or oil.

FUNGI: A major branch of organisms that absorb their nutrients from dead or living organisms. Mushrooms, yeasts, toadstools, rusts, molds, and mildews are all fungi.

GARBAGE: Solid waste or trash (anything that we throw away). Originally, spoiled or waste food that was thrown out; now, any material considered worthless, unnecessary, or offensive, and usually thrown away.

GLASS: A material made by melting silica. Hard, brittle, generally transparent or translucent material typically formed from the rapid cooling of liquefied minerals. Most commercial glass is made from a molten mixture of soda ash, sand, and lime.

GREEN PRODUCT: A product that is not toxic and requires little energy and few natural resources for its manufacture. Its disposal also does not produce an excessive amount or toxicity of waste.

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HOUSEHOLD HAZARDOUS WASTE: Products used in the home that contain substances that are listed as or that exhibit the characteristics of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA): ignitability, corrosivity, reactivity, and toxicity. RCRA does not require that household hazardous wastes be disposed of as hazardous wastes, but caution should be taken to dispose of them so as to minimize the impact to human health and the environment.

HUMUS: The Material that results from the composting process. It's a good soil supplement.

INCINERATOR: A furnace or other unit used for burning waste.

INGOTS: A solid piece of metal shaped for convenience in storage or transportation, such as an ingot of steel.

INTEGRATED WASTE MANAGEMENT: The complementary use of a variety of waste management practices to safely and effectively handle municipal solid waste. Integrated waste management techniques include source reduction, recycling, and combustion and landfilling.

JUNK: Material such as glass, rags, paper, or metals that could be made into something usable.

JUNKYARD: A lot or property where worn out or discarded items, or metal or other scrap material, is stored for possible resale.

LANDFILL: A place where unwanted materials are dumped, compacted, and covered with dirt. *See Sanitary Landfill.

LEACHATE: Water that percolates through a dump or landfill, picking up pollutants along the way. Liquid that has percolated through solid waste and/or has been generated by solid waste decomposition, and that has dissolved or suspended materials in it. The liquid may contaminate ground or surface water.

LITTER: Waste materials carelessly discarded in an inappropriate place. Littering is against the law.

LITTERBUG: Someone who throws away waste materials in public areas or other inappropriate places.

MATERIALS RECOVERY FACILITY: A system that separates collected mixed residential recyclables by type so that they can be recycled into new products available for market.

METAL: An element that usually has a shiny surface, is a good conductor of heat and electricity, and can be melted down, fused, or hammered. The class of metals includes iron, gold, sodium, copper, magnesium, tin, and aluminum.

MICROORGANISMS: Tiny living things that can be seen through a microscope.

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MOLD: A furry textured fungus, often greenish-blue, black, or whitish in color, that appears on food or other organic matter that has been left in a moist place or is decaying.

NATURAL CYCLE: A series of events in nature that repeat over and over, usually involving a complete process of growth or action. Examples of natural cycles include the oxygen cycle, the nutrient cycle, the water cycle, and the mineral cycle.

NATURAL RESOURCES: Things in the world around you, such as trees, water, animals, and soil, which are used to make products. *Materials supplied by nature that are useful or necessary for life, such as minerals, water, and wood.

NONRENEWABLE RESOURCE: Natural materials that are considered finite, or exhaustible, because of their scarcity, the great length of time required for their formation, or their rapid depletion.

NONTOXIC: Not containing ingredients that are harmful, poisonous, or destructive.

NUTRIENTS: Chemicals used as food. *A substance that provides food or nourishment, such as usable protein, vitamins, minerals, or carbohydrates.

OIL: A substance made by prehistoric decay of organic matter, and currently used to produce many products, including fuels and plastics.

OPEN DUMP: An uncovered space once used for depositing municipal refuse, and sometimes experiencing health and sanitation problems. These have now been replaced by modern sanitary landfills with designs that contain waste and prevent contamination of surrounding areas.

ORE: A collection of minerals or a rock that contains a high concentration of an economically valuable metal or mineral.

ORGANIC MATERIALS: Material that comes from something that was once alive.

ORGANISM: Any individual living thing.

PACKAGING: Ways of wrapping products to protect, advertise, or make them convenient for sale. A container or wrapping made out of any of a number of materials and used for storing, transporting, or displaying a product.

PAPER: A thin material made from pulp from wood, old paper, or rag or other fibrous material and used for writing, printing, or wrapping.

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PETROLEUM: A dark, oily, flammable liquid found in the earth's crust. Gasoline, kerosene, and paraffin are all made from petroleum.

PHOTODEGRADATION: The process of breaking down through exposure to sunlight.

PHOTOSYNTHESIS: The process by which plants manufacture nutrients from carbon dioxide and water in the presence of chlorophyll and light. Oxygen is released as a by-product.

PLASTIC: A material made from petroleum capable of being molded, extruded, or cast into various shapes. There are many different kinds of plastic made from different combinations of organic or petroleum compounds.

POLLUTION: In our environment, the condition of being dirty, especially as a result of wastes. The contamination of soil, water, or air by the discharge of potentially harmful substances.

POLLUTION CONTROL TECHNOLOGIES: Equipment designed to reduce pollution and the resulting adverse environmental and health effects from waste combustion or disposal, or private or industrial emissions. Filters are often used to control emissions of particles, and scrubbers can control emissions of acidic gases such as sulfur dioxide and hydrogen chloride.

POLYSTYRENE: A plastic that is easily colored and molded for use in packaging or as a structural material. This material, commonly known by its trade name, Styrofoam, is often used as packaging to insulate takeout or fast food.

POPULATION: The total number of people inhabiting a particular area such as a city, county, country, or the entire world.

POST-CONSUMER WASTE: Residential waste reused in industrial processes; for example, recycled newspapers used to manufacture more newsprint.

POUND: A unit measure of weight equal to 16 ounces or approximately 454 grams.

RECYCLING: Reducing the amount of waste generated by avoiding disposables and overpackaged articles.

PRODUCT: Something that is sold. Something manufactured by hand or by industry for use or purchase by a consumer.

PULP: A mixture of fibrous material such as wood, rags, and paper, ground up and moistened to be used in making paper or cardboard.

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RAW MATERIALS: Unprocessed natural substances, such as wood and metals, used in the manufacture of products.

RECYCLABLE: Able to be used instead of raw materials to make a new product. Material that still has useful physical or chemical properties after serving its original purpose and that can, therefore, be reused or remanufactured into additional products. Plastic, paper, glass, tin and aluminum cans, and used oil are considered recyclables.

RECYCLE: To make materials such as glass, aluminum, paper, steel, and plastic into new products. The process of collecting materials from the waste stream and separating them by type, remaking them into new products, and marketing and reusing the materials as new products.

RED WIGGLER: The type of worm used for vermicomposting.

REDUCE: To decrease the amount of trash we produce by buying only what we need, avoiding disposables, and buying products that are not over packaged.

REFUSE: Trash, rubbish, anything thrown away. Discarded material considered to have no worth or use.

RENEWABLE RESOURCES: Something we use from nature that can be replenished. For example, trees are a renewable resource; a tree can be planted to take the place of one that has been cut down. Oil is not a renewable resource; it takes millions of years for oil to form. *A naturally occurring raw material or form of energy derived from an endless or cyclical source such as the sun, wind, falling water (hydroelectric), biofuels, and trees. With proper management and wise use, the consumption of these resources can be approximately equal to replacement by natural or human-assisted systems.

REUSE: To extend the life of an item by using it again, repairing it, or creating new uses for it. *The use of a product more than once in its same form for the same purpose or for different purposes. For example, a soft-drink bottle is reused when it is returned to the bottling company for refilling; a peanut butter jar may be reused in the home as a container for leftover food.

RUBBISH: Anything thrown out or discarded.

SANITARY LANDFILL: A place for disposing of garbage where it is covered each day with soil in order to reduce odors and pest problems. Modern sanitary landfills also have systems for collecting and treating leachate, the polluted water that drains out from the landfill. A specially engineered site for disposing of solid waste on land, constructed so that it will reduce hazard to public health and safety. Some qualities include an impermeable lower layer to block the movement of leachate into ground water, a leachate collection system, gravel layers permitting the control of methane, and daily covering of garbage with soil.

SCRAP: Discarded or rejected industrial waste material often suitable for recycling.

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SCRUBBER: Common antipollution device that uses a liquid or slurry spray to remove acidic gases and particles from municipal waste combustion facility flue gases.

SOIL: The top layer of the earth's surface, composed primarily of rock, minerals, and decomposed matter from dead plants or animals. Soil is essential for growing things.

SOLID WASTE: The things we throw away: household trash, yard and kitchen wastes, old machinery and equipment, and many agricultural and industrial wastes.

SOURCE REDUCTION: The design, manufacture, and use of products so as to reduce their amount and toxicity. Source reduction measures include reusing items, minimizing the amount of products used, extending the useful life of a product, and reducing the amount of excessive product packaging.

STEEL: A strong durable material made of iron and carbon, and often other metals to achieve different properties. Steel is often used as a component in cans and as a structural material in construction.

TERRARIUM: A closed container in which small plants and sometimes small animals, such as toads and lizards, are maintained in a controlled environment.

TIN: A soft silver-white metallic element, capable of being easily molded and having a low melting point. Tin is often used together with other metals in making cans for packaging.

TIPPING FEE: A fee, usually in dollars per ton, for the unloading or dumping of waste at a landfill, transfer station, recycling, or waste-to-energy facility.

TON: A unit of measure equal to 2,000 pounds or 907.2 kilograms.

TOXIC: Able to cause injury or illness through chemical means. Producing or containing a poisonous substance that may be harmful or deadly.

TRASH: Material considered worthless, unnecessary, or offensive that is usually thrown away. Generally defined as dry waste material; excludes food waste and ashes. The term is often used interchangeable with the word garbage.

TRUE COSTS: The total sum required, in addition to daily or apparent costs. The true costs of waste management include the initial costs of building treatment or disposal facilities and cleaning up already contaminated areas, in addition to the day-to-day costs of running the facilities.

VALUABLE: Having monetary value or useful qualities.

VERMI: The Latin word for worm.

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VERICOMPOSTING: Using worms to compost.

WASTE: Material that has been discarded because it has worn out, is used up, or is no longer needed, such as packaging, newspapers and used writing paper, and broken appliances. Many things thrown out as waste may have the potential to be recycled or reused.

WASTE-TO-ENERGY PLANTS: Combustors that convert heat from the combustion of raw municipal waste into steam, which can be used to provide power for homes and industry.

WASTELAND: Desolate land, unable to support life.

WATER CYCLE: The process by which water circulates on earth, through precipitation (rain or snowfall), use by plants and animals, percolation to groundwater, and evaporation.

WAXED CARDBOARD: A material used in packaging made of thin paperboard coated with a shiny, waterproof surface, usually plastic. Waxed cardboard is often used in making cartons, such as for milk and orange juice. It is not easily recycled.

WETLANDS: A lowland area, such as a marsh or swamp, saturated with water. Wetlands are considered crucial wildlife habitat and are considered important for flood control and maintaining the health of surrounding ecosystems.

WINDROWS: A large, elongated pile of yard and/or food waste used in the composting process. Municipal composting programs often use windrows for large-scale composting of yard waste.

RESOURCES

COMPOST & VERMICOMPOSTING LESSON RESOURCES

Available from Cooperative Extension's Compost Lending Library (call 272-2292):

Compost! Growing Gardens From Your Garbage. Linda Glaser. Brookfield, CT: The Millbrook Press, 1996.

Composting in the Classroom. Nancy M. Trautmann and Marianne E. Krasny. Dubuque, IO: Kendall/Hunt Publishing Company, 1998.

Compost Critters. Bianca Lavies. New York, NY: Dutton Children's Books, division of Penguin Books USA Inc., 1993.

Diary of a Worm. Doreen Cronin. USA: HarperCollins Publishers, 2003.

Pee Wee's Great Adventure: A Guide to Vermicomposting. Lorraine Roulston. Ontario, Canada: Recycling Resource Service, 1999.

Pee Wee and the Magical Compost Heap. Lorraine Roulston Ontario, Canada: Recycling Council of Ontario, 1992.

Wonderful Worms. Linda Glaser. Brookfield, CT: The Millbrook Press, 1992.

Wormology. Michael Elsohn Ross. Minneapolis, MN: Carolrhoda Books, Inc., 1995.

Worms Eat Our Garbage: Classroom Activities for a Better Environment. Mary Appelhof, Mary Frances Fenton, Barbara Loss Harris. Kalamazoo, MI: Flower Press, 1993.

Worms in the Classroom, Activity Ideas. Governor's Recycling Program. Concord, NH, 1992-93.

Worms, Worms, and Even More Worms: A Vermicomposting Guide for Teachers. Integrated Waste Management Board Public Education and Assistance Section, California Environmental Protection Agency, www.ciwmb.ca.gov/Schools/, 1999.

An "Agriculture in the Classroom" lending kit on Waste Management is also available from Cornell Cooperative Extension of Tompkins County (call 272-2292) and includes:

Diary of a Worm. Doreen Cronin. Harper Childrens. 2003

Play Compost Gin! Stan Slaughter. 1998 (card game)

RESOURCES

Recycle! A Handbook for Kids. Gail Gibbons. Little, Brown and Company, Boston. 1992.

Rot 'N Roll, illustrated song book (and tape): The Greatest Hits of Composting and Recycling. Tall Oak Productions, Embudo, New Mexico. 2000.

The Great Trash Book. Loreen Leedy. Holiday House, New York, NY. 1991.

The Tin Forest. Helen Ward and Wayne Anderson. Penguin Group, New York, NY. 2001

Young Discoverer: Garbage and Recycling – Environmental Facts and Experiments. Sally Morgan and Rosie Harlow. King Fisher, New York, NY. 2001.

Where does the garbage go? Paul Showers. Harper Collins, New York, NY. 1994

Other Resources:

Backyard Composting. Harmonious Technologies, Ojai, CA. 1992.

Composting to Reduce the Waste Stream: A Guide to Small Scale Food and Yard Waste Composting. Nancy Dickson, Thomas Richard, and Robert Kozlowski. NRAES, Cooperative Extension, Ithaca, NY. 1991.

Everyone's Guide to Home Compost. Robyn Bem. Van Nostrand Reinhold, New York, NY. 1978

Let it Rot! Stu Campbell. Storey Communications, Inc., Pownal, VT. 1990

The Rodale Book of Composting. Deborah L. Martin and Grace Gershuny, Eds. Rodale Press, Emmaus PA. 1992.

Wormania! Mary Applehof, Billy B and the Brennan Kids. Flowefield Enterprise Production. 1995 (Video)

Worms Eat My Garbage: How to Set Up and Maintain a Worm Composting System. Mary Applehof, Flower Press, Kalamazoo, MI. 1982.