

PLASTIC IMAGINATION

**Educators'
Resources**



PLASTIC IMAGINATION

September 25, 2016 – January 15, 2017

Artists:

Lisa Barthelson	Tom Deininger
Dana Filibert	Joseph Fucigna
Lynne Harlow	Niho Kozuru
Margaret Roleke	Dean Snyder
Bill Thompson	Brian Zink

PLASTIC IMAGINATION

Plastic—a product inextricably tied to the manufacturing history of North Central Massachusetts—has many characteristics that make it fantastically unique. This multipurpose material can be luminous, colorful, lightweight, flexible, durable, practical, playful, affordable, and aerodynamic. It can conjure associations with industrial accomplishment, encourage feelings of nostalgia, fuse popular culture and fine art, and trigger very real fears about consumption and waste.

Numerous artists have capitalized on the material and symbolic pliancy of plastic in its many forms. **Plastic Imagination** explores the work of 10 contemporary New England artists who create extraordinary things with all kinds of plastics. Lisa Barthelson, Tom Deininger, Dana Filibert, Joseph Fucigna, Lynne Harlow, Niho Kozuru, Margaret Roleke, Dean Snyder, Bill Thompson, and Brian Zink cleverly take advantage of the aesthetic promise of plastic to achieve unique forms, surfaces and colors that cannot be attained with traditional materials. All find inspiration in the fillers, films and moldable plastics made popular throughout the last century. Some shave, sand, sculpt, and paint different densities of foam. Some play up the translucent or opaque qualities of Plexi or Fiberglas, and some repurpose plastic toys, treasures, and trash. Some present readily accessible, everyday plastics as strictly formal studies, while others welcome the layers of meaning (social, political, cultural, environmental, and economic) that result from a focus on this ubiquitous and arguably indispensable material.

Plastic Imagination will be on view from September 25, 2016 – January 15, 2017 and is organized by FAM Curator Mary M. Tinti and Koch Curatorial Fellow Lisa Crossman.



Pre-visit Suggestions

Discuss plastic as it connects to their lives

- Ask students what they have used today that is made of plastic, and make a list of all of the plastic things they use daily
- Ask if anyone recycles plastic in their home
- Ask if anyone has a family member who works in a plastics-related company in the North Central MA area. What is that like? What do they do?

You could use this general discussion to start a lesson or unit about the history of plastic in this region.

Discuss the nature of plastic

- What properties (color, texture, hardness, flexibility) does it have? (Physical Sciences Standard 1)
- What kinds of problems has plastic solved?
- Watch a short video about how plastic is made on YouTube: How is plastic made: <https://www.youtube.com/watch?v=6eCt0VDg-Kc>

Discuss plastic in relation to art

- Ask students to hypothesize several reasons why plastic would be good for making art
- What kinds of art might they see in the Plastic Imagination exhibition, two-dimensional (like paintings or drawings) or three-dimensional (like sculpture)? (In fact, they will see both 2- and 3-D art)
- Have they ever seen art made from non-traditional materials (traditional materials being paint on canvas or paper, charcoal, pencil, ink, marble, bronze, clay, glass, stone)?



Post-visit Suggestions

Discuss your visit with open-ended questions

- What surprised you about what you saw?
- What did you find puzzling?
- What were some of the things that you liked the most?
- What did you learn?

History and Geography

Research more about the plastics industry in North Central Massachusetts. On a map, mark where some of the companies are located. Calculate the distance from those companies to your school.

Physical Sciences (Standard I) and Math (Standards 4.D.1, 4.D.3.)

Have each student bring in clean recyclable plastic from home. Analyze the collection by sorting the items into categories by function, color, size, texture, weight, shape, hardness/flexibility, etc. (Some items will fall into two categories.) Make a graph or pie chart showing how many are in each category, and what percentage each category is of the whole collection. Afterwards, work with the art teacher to upcycle some of the plastic items.

Study the impact of plastic on the environment, especially how it impacts our oceans and marine life. As a class, create a list of ways to students can reduce their use of plastic in school and at home.

English Language Arts (Writing Standard I)

Assign students to write an opinion piece about why or why not children their age should see the *Plastic Imagination* exhibition and/or *GLOBAL AFRICA: Creativity, Continuity, and Change*.

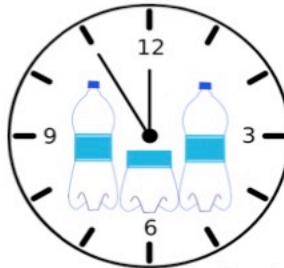
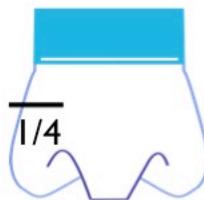
Art

Have students collect no-longer-used and recyclable plastic items, and use them to create a design or picture on cardboard, or a sculpture. This could be done individually, in small groups, or as a whole class.

Ask students to collect plastic water bottles (or use the ones from the Science and Math project above), and upcycle them into a creative project (Pinterest is a great source for ideas.)

What are some problems with plastic? ¿Cuáles son algunos de los problemas con los plásticos?

Americans use **70 million** plastic water bottles a day, which comes to about **2.5 million an hour.**



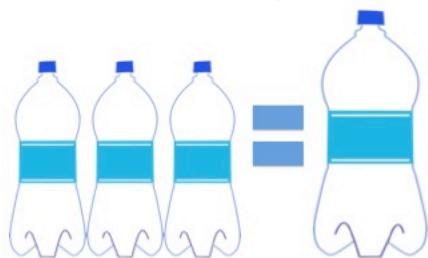
Los americanos utilizan **70 millones** de botellas de agua de plástico al día, lo que resulta en alrededor de **2,5 millones a la hora.**



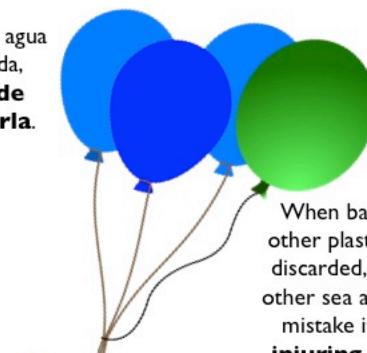
Those bottles are created using **17 million barrels of oil**. If you filled each water bottle purchased $\frac{1}{4}$ full of oil it would equal the total amount used.

Esas botellas se fabrican usando **17 millones de bidones de petróleo**. Si llenas una cuarta parte de cada botella de agua comprada con petróleo, sería igual a la cantidad total utilizada.

For every 1-liter water bottle made, it takes **3 liters of water to create it.**



Por cada botella de agua de 1 litro fabricada, cuesta **3 litros de agua el fabricarla.**



When balloons and other plastic trash are discarded, turtles and other sea animals often mistake it for food, **injuring or killing them.**

Cuando se tiran globos y otros desechos plásticos, las tortugas y otros animales marinos a menudo los confunden con comida, **dañándolos o incluso matándolos.**

For every plastic bottle that's recycled, there are 4 more that aren't.

Por cada botella de plástico que se recicla, hay 4 más que no se reciclan.



Throughout our world oceans there are swirling currents known as gyres. These gyres now contain floating garbage patches just below the surface. **The largest gyre filled with this swirling garbage is twice the size of Texas.**

A través de nuestros océanos hay corrientes que giran, conocidas como "gyres". Estos remolinos contienen entrampados de basura flotante justo bajo la superficie. **La mayor corriente que contiene esta basura que gira es dos veces el tamaño de Texas.**

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Bettina Wassner. "Raising Awareness of Plastic Waste." *The New York Times*, August 14, 2011. <<http://www.nytimes.com/2011/08/15/business/energy-environment/raising-awareness-of-plastic-waste.html>>

Container Recycling Institute. "Facts and Statistics: Plastics." <<http://www.container-recycling.org/index.php/factsstatistics/plastics>>

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Fuentes:
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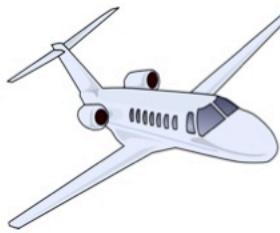
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Instituto de Reciclaje de Envases. "Información y estadísticas: Plásticos." <<http://www.container-recycling.org/index.php/factsstatistics/plastics>>

Base de Datos de Educación en Botellones. "Los residuos sobre el agua embotellada." <http://www.edbottledwater.org/bottled_water>

Plastic is Fantastic

El Plástico es Fantástico



Without it, we wouldn't have modern sports equipment, medical equipment, cars, trains, or planes.

Sin él, no tendríamos equipamiento deportivo moderno, equipos médicos, coches, trenes o aviones.



Plastics are **low-cost** compared to glass and metal materials.



Los plásticos tienen un **bajo coste** comparado con el vidrio o los materiales metálicos.



They can be **molded into useful configurations** that would be difficult or impossible with other materials.

Pueden ser **moldeados en útiles disposiciones** que serían difíciles o imposibles con otros materiales.

They do not shatter like glass, and are **strong and flexible**.

No se rompen como el vidrio, y son **fuertes y flexibles**.



Without plastics, solar and wind power would be impossible to harness.



Sin plásticos, las energías solar y eólica serían imposibles de aprovechar.

Plastic's properties save lives every day. Plastic is fantastic, if it is used wisely and recycled when possible.

Las propiedades de los plásticos salvan vidas cada día. El plástico es fantástico, si se utiliza sabiamente y se recicla cuando es posible.

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Why Leominster?

The plastics industry began in the city of Leominster and, more than any place else in America, was the center of its innovation and growth for many decades.

Like many industries, it began out of necessity. In the 1800s, many businesses in Leominster made hair combs from animal horns, but the supply of horn was dwindling. When an early form of plastic was discovered, the machines that had been used to fabricate horn items were converted, allowing the plastics industry to start on a relatively large scale.

¿Por qué Leominster?

La industria de los plásticos comenzó en la ciudad de Leominster y, más que cualquier otro lugar de América, éste fue el centro de su innovación y crecimiento durante muchas décadas.

Al igual que muchas otras industrias, nació de la necesidad. En los años 1800, muchas empresas en Leominster elaboraban peines a partir de cuernos de animales, pero el suministro de cuerno era cada vez más escaso. Cuando se descubrió una forma temprana de plástico, las máquinas que se habían estado usando para fabricar objetos de cuerno se reformaron, permitiendo que la industria del plástico comenzara a una relativamente gran escala.

A Strong Industry from the Beginning

The main reason the plastics industry in Leominster became so strong is because it produced the molds, machinery, and other materials needed for fabricating plastic as well as plastic products. In 1956, sixty plastics companies in Leominster generated \$20 million in one year. Forward-thinking businesses started vocational education programs to train future workers for what seemed to be an ever-expanding need.

Una fuerte industria desde el principio

La principal razón por la que la industria de los plásticos en Leominster se volvió tan fuerte es porque producía los moldes, maquinaria, y otros materiales necesarios para la fabricación de plásticos, así como los productos de plástico. En 1956, sesenta compañías de plásticos en Leominster generaron 20 millones de dólares en un año. Los negocios con pensamiento progresista comenzaron programas de capacitación profesional para formar a futuros trabajadores en lo que parecía ser una necesidad en constante expansión.

Shifts in Society and Manufacturing

Growth in the industry was continuous until the 1960s and 70s, when a growing awareness of environmental pollution and unnecessary consumer consumption changed the public's perception of plastic. Around the same time, plastics manufacturing began to move overseas, causing a decrease in production here.

Cambios en la sociedad y la producción

El desarrollo de la industria fue continuo hasta los años 60 y 70, cuando una creciente sensibilización acerca de la contaminación ambiental y el consumo innecesario cambió la percepción pública del plástico. Alrededor de la misma fecha, la producción de plásticos comenzó a trasladarse al extranjero, causando una disminución de la producción aquí.

The Industry Today

Despite changing views of plastic and its ever-shifting uses, the plastics industry continues to thrive in Leominster, Fitchburg, and the region. Approximately eighty-five plastics-related businesses play an important part in the regional economy. Some of them are relatively new, founded since the 1970s, and some have evolved from businesses that began in the 1800s.

Today plastic manufacturers provide products for almost all industries: medical, optical, computer, aerospace, food service, building, telecommunications, automotive, packaging, and many more. Innovations in manufacturing techniques, experimentation with environment-friendly plastics, and improvements in customizing products continue to keep the industry strong.

La industria hoy

Pese a las cambiantes percepciones acerca del plástico y el constante cambio en sus usos, la industria de los plásticos continúa prosperando en Leominster, Fitchburg, y la región. Aproximadamente ochenta y cinco compañías relacionadas con los plásticos suponen una parte importante de la economía regional. Algunas de ellas son relativamente nuevas, fundadas desde los años setenta, y algunas han evolucionado a partir

de compañías que comenzaron en los años 1800.

En la actualidad los fabricantes de plástico proporcionan productos para casi todas las industrias: médica, óptica, informática, aeroespacial, servicios de alimentación, construcción, telecomunicaciones, automovilística, envasado, y muchas más. Las innovaciones en las técnicas de producción, la experimentación con plásticos respetuosos con el medio ambiente, y las mejoras en la personalización de productos continúan manteniendo sólida la industria.



A Brief History of the Plastics Industry in North Central Massachusetts

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Una Breve Historia de la Industria de los Plásticos en el Norte de la parte Central de Massachusetts

1845 - 1852

- Leominster's population increases by 50% due to the large number of enterprises producing hair combs and ornaments made from animal horns
- La población de Leominster crece un 50% debido al gran número de empresas que producen peines y adornos elaborados a partir de cuerno de animal

1851 -“Ebonite,” or hard rubber, discovered

- Descubrimiento de la “ebonita”, o caucho endurecido

1862 - English inventor Alexander Parkes introduces a new early-plastic material called Parkesine.

- El inventor inglés Alexander Parkes presenta un nuevo material de plástico temprano llamado parkesina

1868 -The Hyatt brothers patent a manmade horn-like material they call “celluloid,” and start Celluloid Mfg. Co. in Leominster. Over the next decade other comb manufacturers converted their horn fabrication machines to celluloid fabrication.

- Los hermanos Hyatt patentan un material artificial similar al cuerno al que llaman “celuloide”, y fundan Celluloid Mfg. Co. en Leominster. Durante la década siguiente, otros fabricantes de peines transformaron su maquinaria de producción de cuerno a producción de celuloide.

1880s-1890s

- Combs begin to be made of synthetic materials, notably rubber and celluloid. Leominster is called “Comb City.”
- Se empiezan a fabricar peines de materiales sintéticos, concretamente de caucho y de celuloide. Leominster se conoce como la “Ciudad del Peine”

1901 -Viscoloid Company founded by Bernard W. Doyle and others in Leominster. Viscoloid inventors pioneer the use of pyroxylin plastic to make hair combs and



ornaments. In 1910, when hair ornaments were going out of fashion, the company made toilet articles, and later, in 1914, they produced plastic toys.

- Se funda la compañía Viscoloid en Leominster, por Bernard W. Doyle y otros. Los inventores de Viscoloid impulsan el uso del plástico de piroxilina para fabricar peines y adornos. En 1910, cuando los adornos para el cabello pasaron de moda, la compañía fabricaba artículos para el baño y, después, en 1914, fabricaban juguetes de plástico.

1907 -“Bakelite” (phenol formaldehyde), the first all-synthetic polymer, discovered by Leo Baekeland.

-Descubrimiento de la “baquelita” o “baekelita” (fenol-formaldehido), el primer polímero totalmente sintético, por Leo Baekeland.

1920s -Celluloid industries are hit hard by the Depression and the widespread popularity of the women’s “bob” hairstyle, which did not need hair accessories.

- Las industrias del celuloide se ven duramente afectadas por la Depresión y la extendida popularidad del corte de pelo “bob” en las mujeres, que no necesitaba de accesorios para el cabello.

1920 -Sam Foster, a former designer at Viscoloid Co., founds the Foster Grant Company, and begins making dice and other products out of celluloid.

- Sam Foster, un antiguo diseñador en Viscoloid Co., funda la compañía Foster Grant, y comienza a fabricar dados y otros productos sin celuloide.

1925 -Dupont purchases Viscoloid Co.

- Dupont compra Viscoloid Co.

1931 -**Injection molding invented**, speeding up the manufacturing process and creating a boom in the plastics industry. Foster Grant Co. was the first American manufacturer to acquire injection molding machines.

- **Se inventa el moldeado por inyección**, acelerando el proceso de fabricación y provocando el auge en la industria de los plásticos. Foster Grant Co. fue el primer fabricante americano en adquirir máquinas de moldeado por inyección.

1930-1940

- Commercial development of today's major thermoplastics. Plastic made many items cheaper, such as sunglasses.



- Desarrollo comercial de los principales termoplásticos de hoy en día. El plástico abarató el precio de muchos objetos, como las gafas de sol.

1939-1945

- Advent of World War II brings about a greater need for plastics in airplanes, cars, and weaponry. The number of plastics processing companies almost doubles during WWII.
- La llegada de la Segunda Guerra Mundial acarrea una mayor necesidad de plásticos para los aviones, coches y armamento. El número de empresas procesadoras de plásticos prácticamente se dobla durante la Segunda Guerra Mundial.

November 8, 1949

- Earl Tupper, Fitchburg High School graduate and inventor, patents the "Tupper Seal" for closing plastic containers. Tupperware is born.

8 de noviembre, 1949

- Earl Tupper, inventor y graduado por la escuela de educación secundaria de Fitchburg, patenta el “Tupper Seal” para cerrar recipientes de plástico. Nace Tupperware.

1957

- Don Featherstone, a one-time employee of a plastics company called Union Products, designs **the first pink flamingo lawn ornament**.
- The Foster Grant Company has over 80 molding machines.
- In Leominster, over 83% of wage earners, almost 6,000 people, are employed in over sixty plastics-related industries.
- MIT researchers, alongside Disney “Imagineers,” build a prefabricated house with walls, floors, and ceilings made of plastic, called the Monsanto House of the Future.
- The plastics industry was growing at a rate five times faster than all other industries in the U.S.
- Don Featherstone, el que una vez fue empleado de la compañía de plásticos conocida como Union Products, diseña **el primer adorno de flamenco rosa para jardín**.
- La compañía Foster Grant posee unas 80 máquinas de moldeado.
- En Leominster, alrededor del 83% de asalariados, casi 6.000 personas, trabajan en alrededor de sesenta industrias relacionadas con los plásticos.



- Investigadores del MIT junto a “Imagineers” (o “expertos en imaginación”) de Disney construyen una casa prefabricada con paredes, suelos y techos de plástico, denominada Casa del Futuro Monsanto.
- La industria de los plásticos fue creciendo a un ritmo cinco veces más rápido que el resto de industrias de los Estados Unidos.

Mid-century

- Plastics are equated with progress. By this time Leominster was called “Plastics Pioneer City.”
- Los plásticos se equiparan al progreso. Para esta época Leominster era conocido como la “Ciudad Pionera de los Plásticos”.

July 1958

- Earl Tupper sells Tupperware to the Rexall Drug and Chemical Company for \$16 million and buys an island in Central America.
- Earl Tupper vende Tupperware a la compañía Rexall Drug and Chemical por 16 millones de dólares, y se compra una isla en América Central.

1970s

- Manufacturing begins to move overseas, plastic begins to be seen as a pollutant and a symbol of consumerism.
- La producción comienza a trasladarse al extranjero, el plástico empieza a ser visto como un contaminante y un símbolo de consumismo.

1975

- **The first disposable soda bottle** introduced by Dupont engineer Nathaniel C. Wyeth, brother of painter Andrew Wyeth, and son of illustrator and painter N. C Wyeth.
- Se introduce **la primera botella de refresco desechable**, por parte del ingeniero de Dupont Nathaniel C. Wyeth, hermano del pintor Andrew Wyeth, e hijo del ilustrador y pintor N. C Wyeth.

1977

- DuPont Viscoloid Company closes.

- La compañía DuPont Viscoloid cierra.

1988

- The Society of Plastics Industries creates a numerical rating system for polymers that is stamped on the bottom of plastic containers, along with the symbol for recycling.



- La Sociedad de Industrias de Plásticos crea un sistema de clasificación numérica para polímeros que se marca en el fondo de los recipientes de plástico, junto con el símbolo de reciclado.

- 1990** -Due to public pressure, McDonald's stops using Styrofoam packaging. Shortly after, US synthetic manufacturers stop using chlorofluorocarbons (CFCs).
- Debido a la presión pública, McDonals's deja de usar envases Styrofoam. Poco después, los fabricantes sintéticos de Estados Unidos dejan de usar clorofluorocarbonos (CFCs).

Today

- Plastic can be found in almost every product on grocery and department store shelves. **Approximately 85 plastics-related businesses are active in North Central Massachusetts.**

Hoy Podemos encontrar plásticos en prácticamente cada producto de los estantes de grandes almacenes y tiendas de ultramarinos. **Aproximadamente 85 empresas relacionadas con los plásticos están activas en el norte de la parte central de Massachusetts.**

Sources

<http://www.plasticsindustry.org/AboutPlastics/content.cfm?ItemNumber=670>

<https://www.chemheritage.org/distillations/magazine/plastic-town>

<http://www.pbs.org/wgbh/americanexperience/features/biography/tupperware-tupper/>

<http://www.cnn.com/2011/LIVING/07/04/pink.flamingos.mf/index.html>

<http://www.ci.fitchburg.ma.us/439/Fitchburg-History>

<http://www.brooklynrail.org/2005/05/express/a-brief-history-of-plastic>

Local Plastics Manufacturers

Fabricantes locales de plástico

Plastic Products

Productos de plástico

555 Plastics, Inc.
Acromatic Plastics
Advanced Cable Ties Inc.
Advanced Prototypes and Molding
Albright Technologies, Inc.
Alpha Rho, Inc.
Bemis Associates Inc.
Brenmar Molding Inc.
Bway Corp
Cado Manufacturing Co.
Castle Plastics, Inc.
CELLTREAT Scientific Products
Dixie Consumer Products, LLC
Domino Enterprises Inc.
EasyPak, LLC
Eclipse Products, Inc.
F&M Tool & Plastics Inc.
First Plastics Co Inc.
FLEXcon
Foamtech Corporation
Fosta-Tek Optics Inc.
Georgia-Pacific Corp.
GMP Sales Inc.
Grove Products Inc.
Hi-De Liners, LLC
Injectronics Corporation
Innovative Designs
Innovative Mold Solutions
Integra Companies
JAM Plastics, Inc.
Jumbo Plastics
K & C Plastics, Inc.
Krest Products Corp.
Laddawn, Inc.
LaManna Precision, Inc.
Leaktite Corp.
Lee Plastics, Inc.
Mack Prototype, Inc.
Mar-Lee Companies, Inc.
Micron Plastics, Inc.
Northern Products, Inc.
Nypro, Inc.
Pexco, Inc.
Plastic Recovery
R & P Plastics, LLC
Raw Material Recovery

Rugg Manufacturing Corp.

Sabic Polymers Saint-Gobain

Performance Plastics

SMC Ltd.

Sterilite Corp.

Sterling Manufacturing Co.

Styletech Co.

Thermo-Fab Corp

TLE Manufacturing Corp

United Plastics

United Solutions

UrthPact

Plastics Machinery, Molds, and Dies

Herramientas, moldes y tintes para plástico

American Mold Corp.
American Screw & Barrel, Inc.
Anthony Tool & Die Corp.
Banner Mold & Die Co., Inc.
Bisson Tool & Die Co.
Concrete Block Insulating Syst.
Doucette Tool & Die, Inc.
Ermini Tool & Die Co.
F&M Tool & Die Co Inc.
First Plastics Corp.
Giroud Tool Corp.
Mass Tech Mold
Mayhew Basque Plastics LLC
Mayfield Plastics Inc.
Reliance Engineering
Rocheleau Tool & Die Co.
Select Engineering Inc.
Stan-Cast Inc.
Stromberg Tool

Resins, Polymers, Plastic Compounds, Dyes, and Raw Materials

Resinas, polímeros, componentes plásticos, tintes y materias primas

Aaron Industries Corp.

F & D Plastics

Mexichem Specialty Compounds, Inc.

Modern Dispersions, Inc.

Resin Technology LLC

S & E Specialty Polymers LLC

Teknor Apex

TPE Solutions, Inc.



Plastics Resources

Websites

Great website with straightforward information about plastics including some info graphics, videos, timelines:

<http://www.plasticseurope.org/what-is-plastic/types-of-plastics-11148.aspx>

Another good, website with lots of information on plastic. Not quite as easily to read or understand, but good information if you can sift through:

<https://plastics.americanchemistry.com/The-Basics/>

Last website that has additional information. I didn't find it quite as helpful but has a glossary that might be a good reference.

<https://www.plasticsindustry.org/AboutPlastics/content.cfm?ItemNumber=656>

Good general overview about plastic. Simple to read and understand:

<http://www.explainthatstuff.com/plastics.html>

Videos

(Nat Geo) I Didn't Know That - How Dolls Are Made

https://www.youtube.com/watch?v=W2_FFIpaBew

Toy Figurines | How It's Made (some parts about plastic but not all)

<https://www.youtube.com/watch?v=w5KRawOXY4U>

A whole assortment of videos

[http://www.plasticsindustry.org/AboutPlastics/VideoList.cfm?navItemNumber=1115](https://www.plasticsindustry.org/AboutPlastics/VideoList.cfm?navItemNumber=1115)

How it's made, BIG Toys, BIG Bobby Car, How its made!!!

<https://www.youtube.com/watch?v=dcRUE1MJE28>

Videos from a student video contest

[http://www.plasticsindustry.org/studentvideocontest.cfm](https://www.plasticsindustry.org/studentvideocontest.cfm)

How it's made plastic bottles and jars

<https://www.youtube.com/watch?v=ZfyPCujUPms>

continued

How is plastic made:

<https://www.youtube.com/watch?v=6eCt0VDg-Kc>

How It's Made Plastic Bags

<https://www.youtube.com/watch?v=8CfL5xI2N1Q>

How It's Made Plastic injection molds

<https://www.youtube.com/watch?v=seZqq1qxW30>

Educational video for kids: How Plastic Is Made

<https://www.youtube.com/watch?v=f3BjWvTT9Ro>

An Island made from plastic bottles by Richard Sowa

https://www.youtube.com/watch?v=GnLhWpy_nqI

(Nat Geo) How Plastic Bottles Are Recycled Into Polyester

<https://www.youtube.com/watch?v=zyF9Mxlcltw>

HowStuffWorks Show: Episode 1: Corn Plastic

<https://www.youtube.com/watch?v=jwc-n3W9rNY>

How Its Made: Plastic Cups and Cutlery

<https://www.youtube.com/watch?v=oxN70ktR0jg>

PLASTIC IMAGINATION

Lisa Barthelson



mandala, all consuming, 2016
maple panel, plastic family debris

mándala, que todo lo consume, 2016
panel de acre, desechos plásticos de la familia

The artworks of Lisa Barthelson reflect how she looks at the world: “I look at everything as a potential art medium, a material to be used and transformed.” Her **Family Debris** series creatively reuses objects that her family of five was about to discard or recycle. Making art from thrown away ‘stuff’ is her way of turning trash into treasure.

Las obras de arte de Lisa Barthelson reflejan cómo ella percibe el mundo: “Miro todo como un medio con potencial para el arte, un material para ser usado y transformado.” Su serie **Family Debris** creativamente recicla objetos que su familia de cinco miembros estaban a punto de desechar o reciclar. Hacer arte de ‘cosas’ desechadas es su manera de transformar la basura en un tesoro.

PLASTIC IMAGINATION

Tom Deininger



Wave #4 - Yellow Barrel, 2013
found plastic objects on panel

Ola #4 – barril Amarillo, 2013
Plástico encontrado, objetos sobre panel

Impressionism is an artistic style that blurs lines and edges to leave an *impression* of an object, scene, or shape. The viewer has to stand back from the artwork in order to “see” the way the colors blend to make a complete image.

Tom Deininger has taken the idea of Impressionism several steps further. Looking at his artworks from afar, one sees a painted landscape, but up-close a dense, carefully assembled sculpture of plastic bits is revealed.

El impresionismo es un estilo artístico que desdibuja las líneas y los límites para ofrecer una *impresión* de un objeto, escena o forma. El espectador tiene que alejarse de la obra para “ver” cómo los colores se funden para crear una imagen definida.

Tom Deininger ha llevado la idea del Impresionismo a otro nivel. Al mirar a sus obras de arte de lejos, uno ve un paisaje pintado, pero de cerca se revela una densa escultura de pedazos plástico ensamblados cuidadosamente.

PLASTIC IMAGINATION

Dana Filibert



Fur Feathers and Froth, 2011
steel, repurposed objects, epoxy, paint

Pelaje plumas y espuma, 2011
acero, objetos reutilizados, epoxy, pintura

Dana Filibert welds steel and repurposed metal objects, carves high-density foam, and molds epoxy to create her dream-like sculptures.

Dana Filibert suelda acero y readapta objetos de metal, talla espuma de alta densidad y moldea resina epoxídica para crear sus esculturas oníricas.

PLASTIC IMAGINATION

Joseph Fucigna



Big Drip, 2013
plastic, metal fencing, and cable ties

Gran goteo, 2013
plástico, cercas de metal y bridas

Joseph Fucigna worked in clay, steel, and rubber before he began exploring plastic and metal fencing materials. He begins by building a structure with metal wire and fencing, and then adds layers of new, colored plastic fencing.

Joseph Fucigna trabajó la macilla, el acero, el caucho antes de comenzar a experimentar con el plástico y el material de cerca. Comienza construyendo una estructura con metal de alambre y luego agrega capas de alambrado plástico nuevo y coloreado.

PLASTIC IMAGINATION

Lynne Harlow



Accumulation, 2015
Plexiglas, chiffon, vinyl

Acumulación, 2015
Plexiglás, chiffon, vinilo

Lynne Harlow describes her creative process this way:

"I arrive at my pieces by reducing physical and visual information. This process of reduction, a steady taking away, is ultimately intended to be an act of generosity. In each piece I'm looking for the point at which these reductions allow me to give the most. It's an appealing contradiction because it prompts one to reconsider the concept of abundance and the nature of giving."

Lynne Harlow describe su proceso creativo de este modo:

"Mis piezas nacen cuando reduzco la información física y visual. Este proceso de reducción, una resta constante, pretende ser, en última instancia, un acto de generosidad. En cada pieza busco el punto en el que estas reducciones me permiten dar lo máximo. Es una contradicción interesante porque lo impulsa a uno a reconsiderar el concepto de abundancia y la naturaleza de dar."

PLASTIC IMAGINATION

Niho Kozuru



Niho Kozuru combines shapes from Colonial furniture legs, architectural details, gears, and machinery to make her rubber sculptures. She creates molds of such shapes, and then fills the molds with colored, liquid polyurethane rubber. After the molded pieces have hardened, she removes them from the mold and stacks them.

Niho Kozuru combina formas de patas de muebles coloniales, detalles arquitectónicos, engranajes, y maquinaria para hacer sus esculturas de caucho. Ella crea moldes de tales formas, y luego los rellena con caucho de poliuretano líquido. Luego de que las piezas se han endurecido, las remueve del molde y las apila.

Liquid Sunshine: Amber

Tower, 2016

cast rubber and steel

Sol Liquido: Torre de Ámbar, 2016

molde de goma, y acero

Margaret Rolekes



Barbie Lives in a Police State, 2015
painted plastic toys on wood

**Barbie Vive en Una Estación de
Policía**, 2015
juguetes plásticas pintada sobre madera

Margaret Roleke buys inexpensive toys and used shotgun shells. She transforms these “harmless” materials into social commentary about war and violence. In addition to her three-dimensional artwork, she often also makes collages to capture her thoughts.

Margaret Roleke compra juguetes baratos y cartuchos de escopeta usados. Luego transforma estos “inofensivos” materiales en comentarios sociales sobre la guerra y la violencia. Además de su trabajo de arte tridimensional, frecuentemente también crea collages para capturar sus pensamientos.

PLASTIC IMAGINATION

Dean Snyder



Syzygy, 2016
epoxy resin, carbon fiber and pigment

Sizigia, 2016
resina epoxi, fibra de carbon y pigmento

Dean Snyder's sculptures begin their life-like appearance as drawings. He then carves the sculptures from a material called expanded polystyrene, which is similar to Styrofoam, but much harder. The carved forms are coated with many layers of auto enamel and dyed Fiberglas resins, which produce a marbled effect. The black-toned sculptures have been coated with a layer of carbon fiber.

Las esculturas de Dean Snyder comienzan a tener una apariencia real cuando son dibujos. Luego talla las esculturas de un material llamado poliestireno expandido el cual es similar a Styrofoam, pero mucho más duro. Las formas talladas están recubiertas con muchas capas de esmalte para autos y resinas de fibra de vidrio teñidas, las cuales producen un efecto de mármol. Las esculturas de tono negro han sido recubiertas con una capa de fibra de carbono.

Bill Thompson



Surge, 2012
urethane on polyurethane block

Oleaje, 2012
uretano sobre un trozo de poliuretano

Working from sketches, Bill Thompson carves and sands blocks of polyurethane foam to achieve the desired shapes. He then applies around twenty coats of automotive primer and a final coat of clear acrylic urethane to create the highly reflective surface.

Trabajando desde sus bocetos, Bill Thompson talla y lija bloques de espuma de poliuretano para lograr las formas deseadas. Luego aplica alrededor de veinte capas de imprimación para automóviles y una capa final de uretano acrílico transparente para crear una superficie altamente reflectante.

PLASTIC IMAGINATION

Brian Zink



Composition in 2016 Yellow, 2119 Orange, 2662 Red and 3001 Gray,
2015

colored Plexiglas mounted on panel

**Composición en amarillo 2016,
anaranjado 2119, rojo 2662, gris
3001,** 2015

Plexiglás colorado montado sobre panel

To create his artworks, Brian Zink begins with sketches, which he refines into drawings that show the exact sizes and colors he wants. These drawings are sent to a family-run sign shop where the Plexiglas is cut. Zink then carefully mounts the pieces to achieve the desired pattern.

Para crear sus obras de arte, Brian Zink comienza con sus bocetos, los cuales perfecciona con dibujos que muestran los tamaños exactos y los colores que él quiere. Estos dibujos son enviados a una tienda familiar donde se corta Plexiglax. Luego Zink monta cuidadosamente las piezas para alcanzar el diseño deseado.