



Steampunk Entomology

Create a futuristic insect specimen using clay, discarded metal pieces, and wire.

(art + history)(art + science)

The term “steampunk” was originally coined in the 1980s to define a specific type of literature that had been previously undefined. This literary genre is usually set in the Victorian era, combined with futuristic innovations that may have arisen if our advances in technology had been mechanical and steam-powered, perhaps without the invention of electricity.

Although the term Steampunk wasn't coined until the 1980s, its origins can be traced back to the 19th century and is seen in novels written by Jules Verne and H.G Wells in which science fiction is infused with romance. For this reason, the imagery of Steampunk is always very futuristic but still retains the Victorian style — imagine brass, wood, glass, and plenty of detailing.

Steampunk itself is not limited to literature, however. It has become a complete subculture, with Steampunk fashion, art, games, and even music. From the fantastic imagery described in Steampunk novels, it was only a matter of time before people started to create gadgets and mechanisms in this style.

This project combines “steampunk” with entomology to create futuristic, robotic insects that appear to be powered by gears and mechanicals. These miniature sculptures are beautiful works of art and imagination. Air dry clay will serve as a base for the sculpture and will make assembly of the metal pieces easy.

GRADES K-12 Note: Instructions and materials are based upon a class size of 24 students. Adjust as needed.



Materials (required)

Various found objects such as gears, clock parts, metal washers, small screws, springs, or nails.

Amaco® Self Hardening Clays; choose two 5 lb boxes per class

Marblex Gray (33204-2505)
Stonex White (33247-1005)
Mexican Pottery Clay (33205-3005)

To glue metal to metal:

E6000® Jewelry Adhesive, 3.7 oz tube (23802-1004); share one across class

To glue metal to clay:

Weldbond® Universal Adhesive, 4 oz (23819-1004); share one across class

Blick® Armature and Sculpture Wire, 16-gauge, 32 ft spool (33400-1632); share one across class

Iridescent Film, 36" x 12.5 ft roll (11209-1036); share one across class

Optional Materials

Art Metal Foil Sheets, copper, 40-gauge, 12-pack, (60513-1040)

Blick® Copper Wire, 24-gauge, 100 ft roll (33415-1024)

American Crafts® Pow! Glitter Paper, 12" x 12" sheet (11756-)

Sargent Art® Liquid Metal Acrylics, assorted colors (00730-)

Genuine Boxwood Tools, set of 3 (60502-1009)

Fiskars® Recycled Scissors (57097-)

Mini Wire Cutters (33083-1020)

Preparation

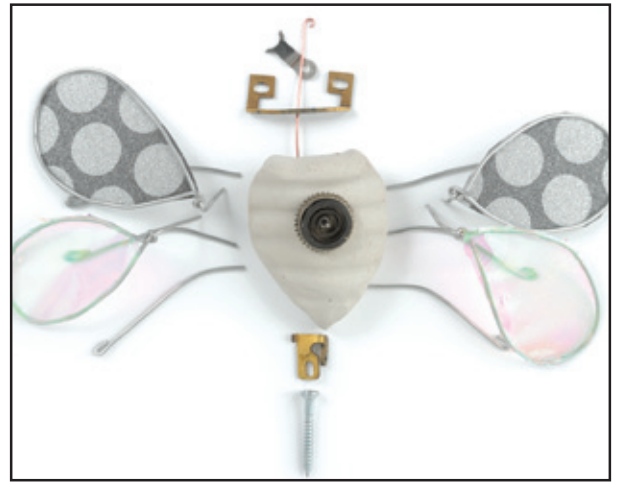
1. Study the anatomy of spiders, insects, beetles, butterflies, and moths.
2. Supply each student with a piece of air-dry clay about the size of an orange.
3. Gather various “junk” gears, washers, bolts, and interesting metal pieces. Take apart an old clock or watch to find what’s underneath.

Process

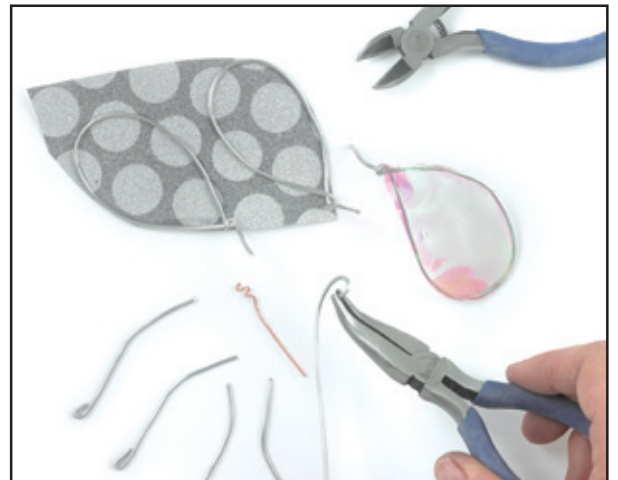
1. Assemble the parts that will be used to make an entomological steampunk creation. Place them together on a table to help decide what placement will work best.
2. If wings are needed, bend armature wire or copper wire into a wing shape, leaving a 1” long end that can be pushed into the clay beneath. Glue the wire wing shape onto iridescent or glitter paper and trim away the excess. Alternately, cut wing shapes from thin copper sheet, and emboss. If desired, add painted details with copper or silver metallic paint.
3. Create legs or antennae from copper or aluminum wire. Again, include an added wire extension that can be pushed into the clay.
4. Form a body shape out of air-dry clay large enough to hold all the parts. Assemble the insect by attaching the parts. If a part cannot be pushed into the clay, glue can be used instead. After the clay body has dried and hardened, check to see if there are any loose parts that may need gluing.

Options

- Don’t limit yourself to insects! Create birds or other animals using the same process.
- Embellish further by adding acrylic paints.



Step 1: Lay out and organize metal parts to be used for an insect or bug.



Step 2: Create wings, legs, and antennae out of wire, leaving extra wire to push into the clay. Add embossed sheet metal parts, if desired.



Step 3: After creating a body out of air-dry clay, push the various metal or wire parts into the clay to create a finished insect.



National Standards for Visual Arts Education

Content Standard #1 — Understanding and applying media, techniques, and processes.

K-4 • Students know the differences between materials, techniques, and processes.

5-8 • Students intentionally take advantage of the qualities and characteristics of art media, techniques, and processes to enhance communication of their experiences and ideas.

9-12 • Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks.

Content Standard #4 — Understanding the visual arts in relation to history and cultures..

K-4 • Students know that the visual arts have both a history and specific relationships to various cultures.

5-8 • Students know and compare the characteristics of artworks in various eras and cultures.

9-12 • Students differentiate among a variety of historical and cultural contexts in terms of characteristics and purposes of works of art.