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FOR EXCELLENCE IN MIAMI-DADE PUBLIC SCHOOLS

2019-2020

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Build-a-Bug:
A STEAM Intro to Insect
Anatomy Using Art

Build a Bug

3D Mixed Media

An Introduction to Insect Anatomy

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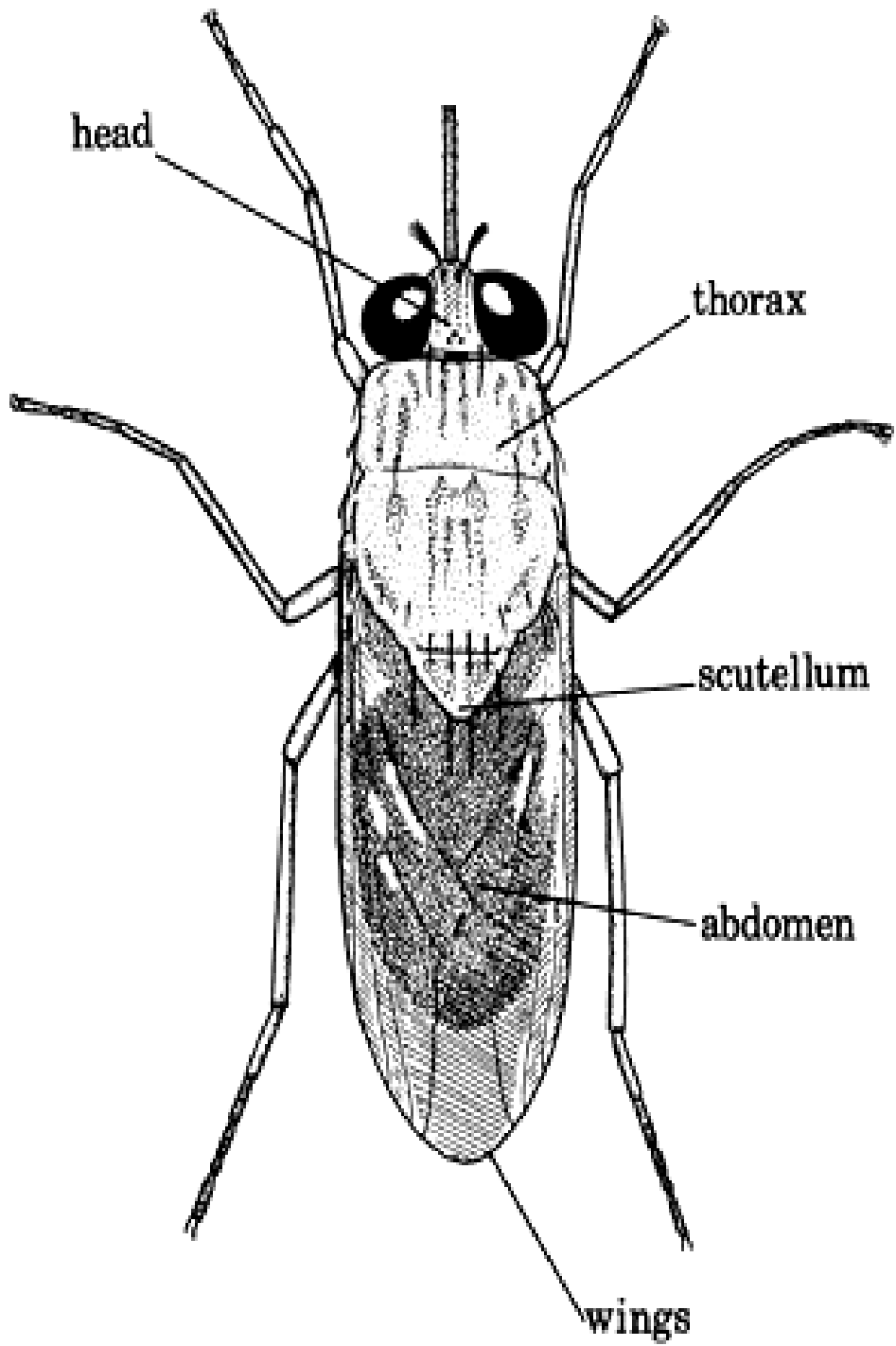


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Goals and Objectives

Build-a-bug provides the elementary student with an easy way to explore the transition from 2D studio skills like drawing and painting to 3D mixed media and its form using recycled materials (plastics and quilled cardboard or paper). **Quilling** or paper filigree is an **art** form that involves the use of strips of paper that are rolled, shaped, and glued together to create decorative designs.

Using the Florida Standards listed below, the student is exposed to an interdisciplinary lesson of visual arts education, science, life science, technology, and design ideas of drawings and simple models.

(Florida State

Standards: Skills and Techniques Standard 1)

- A. Uses and organizes two-dimensional and three-dimensional processes to produce works of art that are derived from personal experience, observation, or imagination.

Number: VA.5. S.3

Title: Through purposeful practice, artists learn to manage, master, and refine simple, then complex, skills and techniques.

Type: Enduring Understanding

Subject: Visual Art

Grade: 5

Big Idea: Skills, Techniques, and Processes

SC.4L.6.2: Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by environment.

VA.4. S.2: Development of skills, techniques, and processes in the arts strengthens our ability to remember, focus on, process, and sequence information. read

VA.5. S.1: The arts are inherently experiential and actively engage learners in the processes of creating, interpreting, and responding to art.

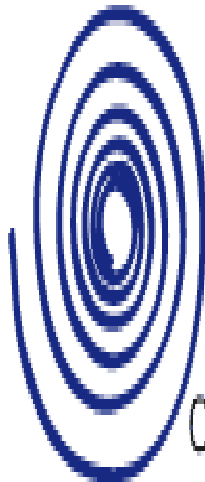
Course Outline and Overview

Working in groups or as individuals the student will explore shape versus form, additive versus subtractive as they construct their mixed media sculpture. Using recycled materials, the first lessons review insect anatomy and the importance of detail; including discussion on the importance of recycling and personal and collective environmental responsibility. The focus is directed on South Florida's insect population and their interdependence.

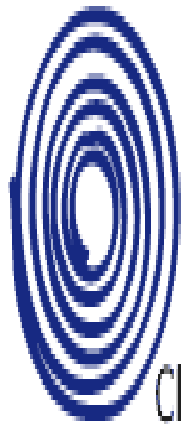
This is an introductory 3-D mixed media studio art class for the elementary level of grades three through five, with cross curriculum connections to science and environmental issues. The timeline is approximately four to six weeks for one hour a week. The student lectures are short and to the point and involve visuals of a variety of insect species common to South Florida.

WEEK 1 (60 minutes)

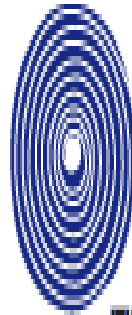
The students review a simple visual of the basic anatomy of an insect with emphasis on parts of the insect- head, thorax and abdomen in their varied shapes. Students should do a pencil sketch of the basics—Head, thorax and abdomen and label them for future use in the construction of their piece. The instructor will demonstrate the proper way to form the strips of cardboard/paper and the application of small pieces of masking tape to achieve the desired shape. Students in the upper grades may be ready to begin the build the very first class. Students can build basic shape and cover with tape, as instructor discusses the benefits of using recycled paper. Home learning – student will research/find a picture of an insect they would like to emulate in their mixed media build. Instructor will critique 2D drawing of insect/insect paper form.



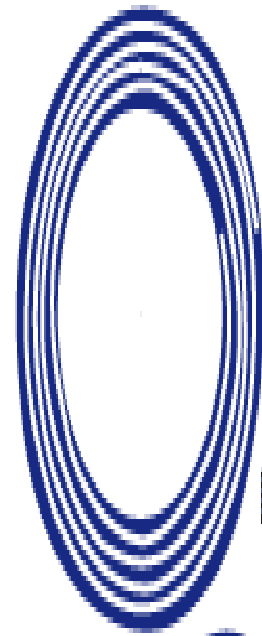
Open



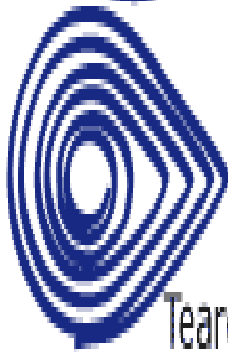
Closed



Tight



Large



Teardrop



Eye



Petal



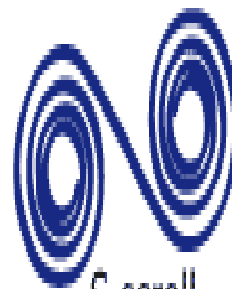
Leaf



Heart scroll



V scroll



S scroll

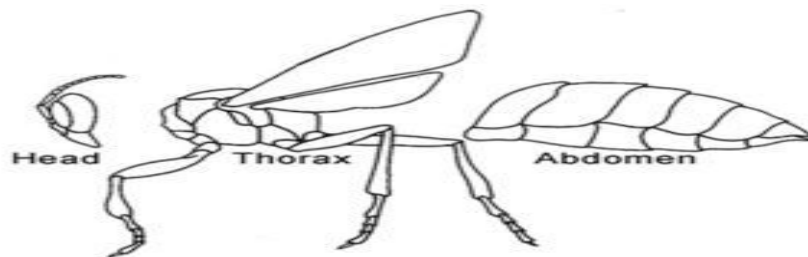


V

Course Outline and Overview

WEEK 2 (60 minutes)

Reviewing their sketches and basic anatomy, students begin their build if they did not begin the build in the first class. The instructor reviews all built forms before student continue working on the extremities. This second week is dedicated to demonstrating how to- quill with paper/thin cardboard and apply tape to their constructed pieces. The teacher demonstrates how to us the template,



discussing insect types and basic body parts. Students use their drawing as the template to focus on proportion and size. Instructor should review the techniques and assist individual students as necessary.

Materials per table:

2 rolls of 1.5" masking tape

Recycled cardboard/manila folders

shredded cardboard/shredded construction paper

Student drawings for templates

4 scissors

WEEK 3 (60 minutes)

The students should be finishing the assembly of the head, thorax and abdomen of their insect and check carefully for gaps in the masking tape and correct as necessary. Legs and wing can be made of natural materials and or pipe cleaners and plastics from old student folders. The student will need to paper punch selected colored construction paper or use small beads or sequins to make eyes.

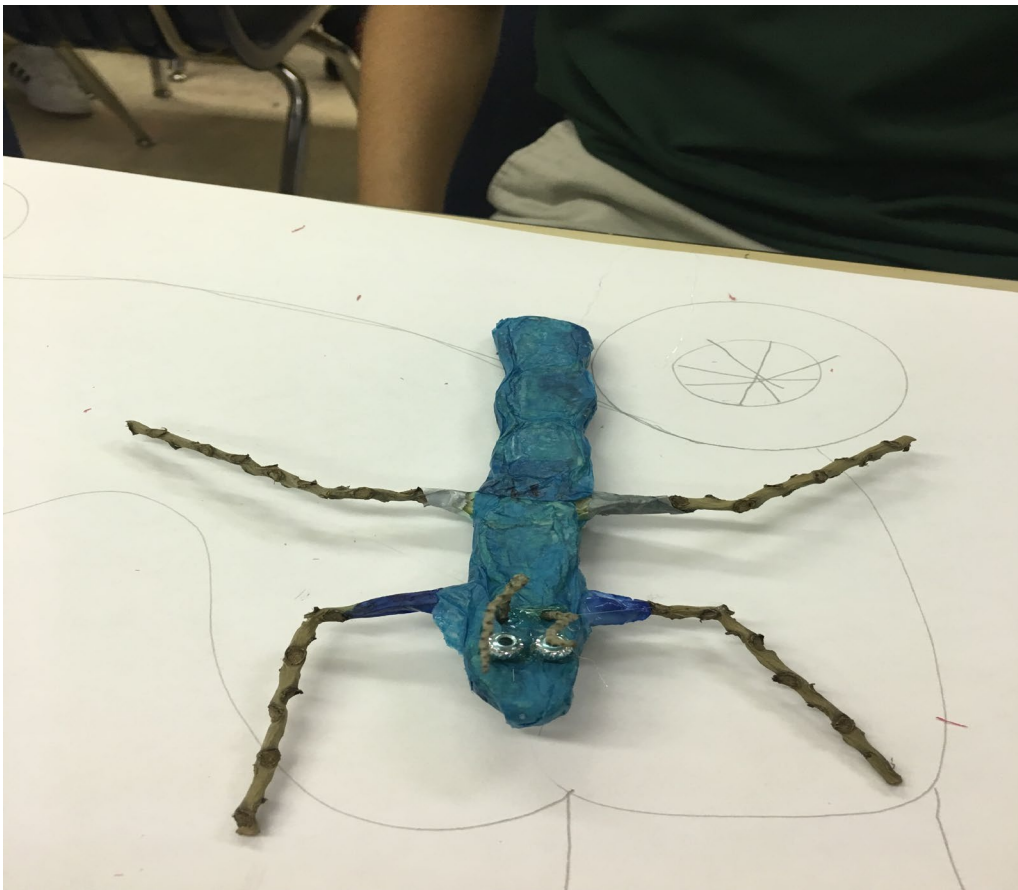
The student will apply a small amount of tape around the eyes and have the piece critiqued by the teacher. This week's demonstration will cover proper application of the skin - (colored tissue paper) using a stiff #10 bristle brush with white school glue. Once the piece is approved for the skin application, the student can begin; the instructor should have an area set aside that is covered with a large garbage bag for work in progress.

Materials: assorted colored tissue #10 Stiff bristle brush White school glue large garbage bags



WEEK 4/5/6 (if needed) All or most of the students should be applying their skins using small torn pieces of colored tissue paper. Careful facilitation is necessary and attention to detail should be emphasized. By this time students have decided on their color schemes and should be working from dark to light when applying colors. This is the time to give individual feedback and direction to maximize the successful completion of the student's mixed media piece. Each student should receive feedback on their application technique and be approved before applying the gloss medium sealer. Instructors will find that some will finish sooner than others and can assist those that may have issues with their pieces. Using weeks 5 and 6 may be necessary to promote that extra degree of quality in overall student work.

Materials: Assorted colored tissue paper #10 Stiff bristle brushes, white school glue/ Gloss medium (used as a sealer) large garbage bags



Visual Arts Lesson Plan Grade 4/5 Time: 4 to 6 hours

Lesson: 3D mixed media -Build-a-bug

Materials: construction paper, 1.5" masking Tape, white glue, Tissue paper in assorted colors, **recycled** manila file folders, #10 stiff bristle brushes, assorted colors construction paper, Hole punch, large garbage bags, [scissors, paper cutter/paper shredder- strip cut-optional].

Hot glue gun for teacher use only.

Visual/Resources: Teacher demonstration/exemplars, student exemplars, Internet resources, large visual of the basic anatomy of an insect. **(See packet)**. Procedures: Students review visual of basic insect anatomy. A display of a variety of insect types via promethean/Smartboard. Draw sketch of selected insect for reference and label the basic parts.

Activities:

Teacher demonstrates how to quill paper to make the basic parts of their selected insect to prepare for application of masking tape in 2" increments. Students build(**quilling**) and cover basic body shape with tape using their own sketch as a template. **Teacher demonstrates** how to assemble the quilled parts and pipe cleaner legs as needed. Proper application of torn tissue paper to insect form. Student selects tissue paper color/colors and begins application on main body, finishing with legs and antennae. Upon completion student will apply small amount of gloss medium to seal. The finished piece can be mounted on wood or rock with a glue gun by the instructor.

Visual Arts Lesson Plan

Vocabulary: 2 dimensional (2D), 3 dimensional (3D), environmental, impact, form, shape, media, recycle, additive, anatomy, native, invasive, bug, insect, assemble, quill, thorax, abdomen, illustrator, entomology, identification.

ESOL Strategies:

VC- Vocabulary in context.

WGIR- Whole group to individual response.

VAKT- Visual, Auditory, Kinesthetic, tactual.

Performance Assessment /Evaluation

Student work in progress X

Observation of final product x

Group assessment (critique) x

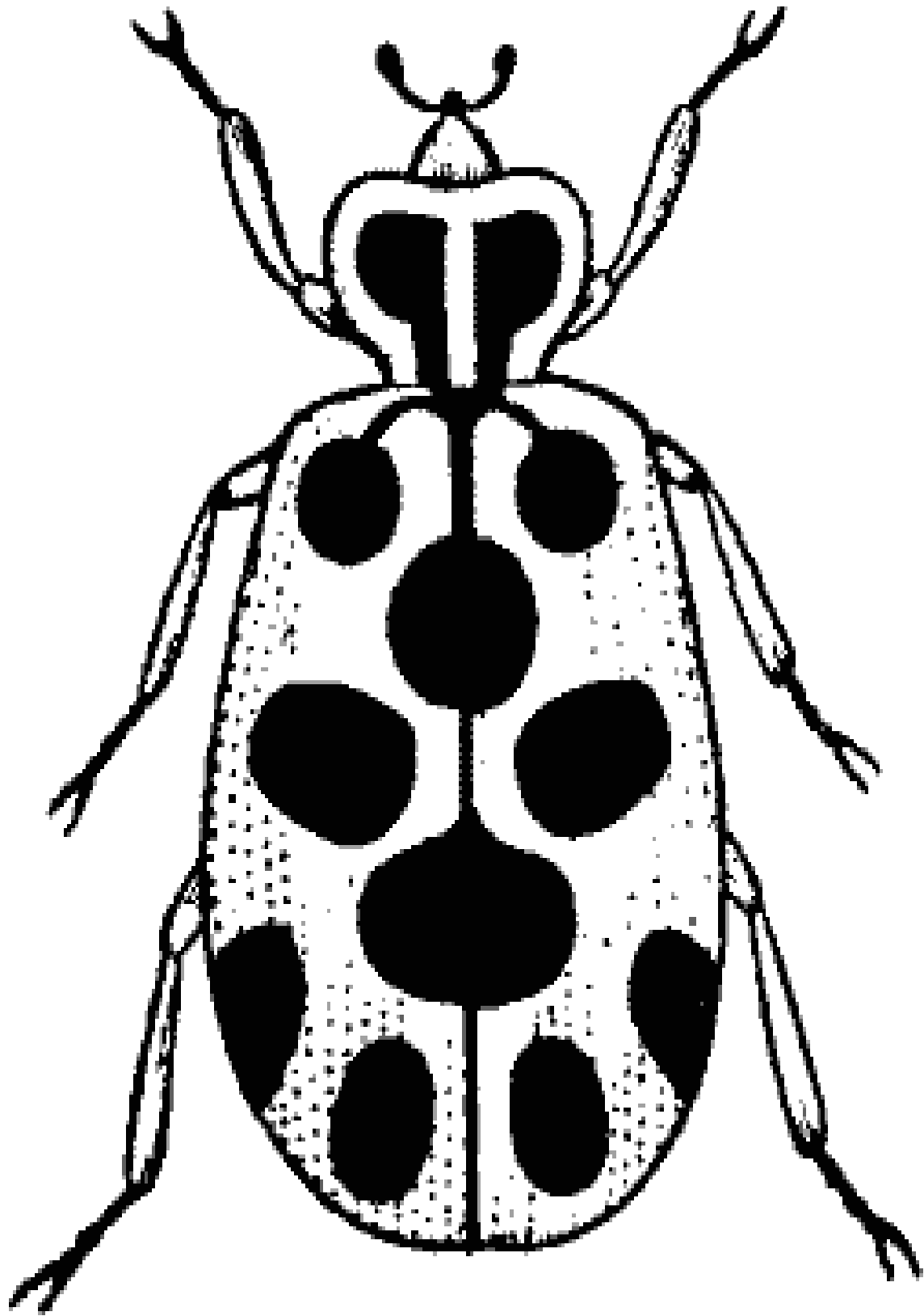
Self-assessment by student x

Integrated Curriculum

Vocabulary, science, social studies, visual art.

Concepts/Skills

Form, Symmetry, Pattern, Color, technique, fine motor



Resource List

Websites:

<https://www.google.com/search?q=Beetle&tbm=isch>

<https://www.spanish4kiddos.com/learning-about-insect-facts-and-anatomy-for-kids/>

<https://kinderart.com/art-lessons/crafts/paper-quilling/>

Materials List:

Education Fund Center for educational materials: thin cardboard, **Home Depot:** 3m masking tape

1.5" rolls. **Michael's Craft:** construction paper, colored tissue paper, Gloss medium /white glue/ stiff

acrylic bristle-brushes #10. Please note that some the above items are available through **the school**

systems stores and distribution warehouse and can be ordered via your school site.

Work sample 5thGrade Work sample 5thGrade Work sample 5thGrade Work sample 5thGrade Work sample 5thGrade



