

Introduction

As an end of the year project, your goal will be to create a collection of evidence from the species that have appeared in our Diversity of Life packet. There are many benefits to doing a specimen collection – you can learn about various species, you get to be outside, you learn about the adaptations that have allowed them to survive, you learn about the habitat in which we live in, you experience the diversity of life first hand, etc...

Here are some of the guidelines to help you develop your project...

- You need a minimum of **40** species in order to receive full credit.
 - If you achieve more than that, you are allowed to earn extra credit.
- You need to have at least 1 species from each D of L chapter.

Kingdom Fungi

Fungi / Lichen

Kingdom Plantae

Plants 1

Plants 2

Plants 3

Plants 4

Kingdom Animalia

Animal 1

Animal 2

Animal 3

Animal 4

Animal 5

Animal 6

Animal 7

The collection itself needs to be tangible, with two exceptions.

1. Each item should also be accompanied by a photograph of you collecting it.
 2. Each artifact must also include a typed description describing the following items.
 - What is it? What piece of evidence did you find? What species is it from?
 - How does this artifact contribute to the success of the organism?
 - Where did you find it? Describe the habitat in which this species lives.
 - How does this species play a significant role in the ecosystem?
- It should be displayed in a unique way
 - _____
 - _____

Your final project will be due on _____.

How to make a kill jar

1. Use a clean, glass jar with straight sides.
2. Write a poison label and tape this to the front of the jar with clear tape..
3. Tape the bottom of the jar with heavy gray tape to protect it from breaking if it is dropped.
4. Place a 2" - 3" layer of cotton balls in the bottom of the jar.
5. Cut a piece of corrugated cardboard the same diameter as the inside of the jar to fit over the cotton balls.
6. Carefully punch several small holes in the cardboard with a screw driver or knife.
7. Charge the jar by adding polish remover to the cotton balls.
8. Immediately place the cardboard circle on top of the cotton balls & place the lid on the jar.
9. Keep the inside of the jar moisture free so insects won't discolor & replace the cotton & cardboard as needed.

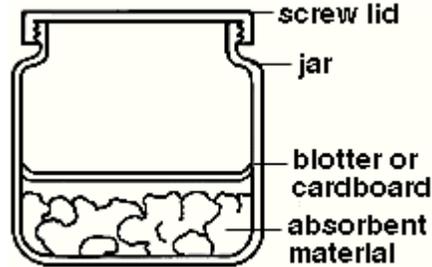


Figure 1. Killing jar

Remember to recharge the jar periodically if insects do not seem to be dying as fast and never leave the lid off of your jar.

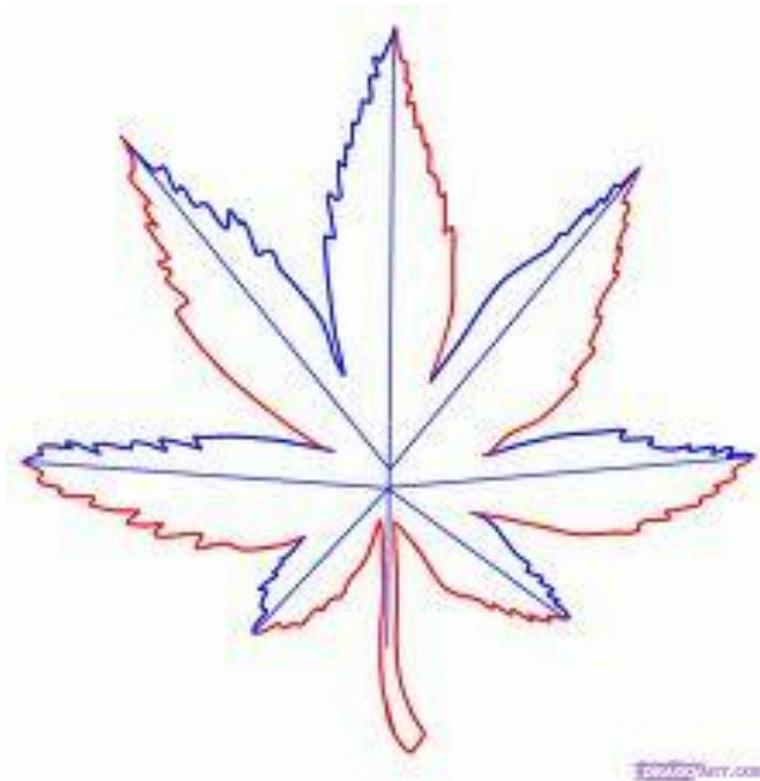
How to Make Leaf Cornstarch Impressions

Things You'll Need

- 1½ cups cornstarch
- 2 cups baking soda
- 2 cups water

Instructions

1. Place the cornstarch, baking soda and water in a large saucepan and cook it over medium heat, stirring occasionally with a wooden spoon, until the mixture begins to thicken.
2. Remove the saucepan from the heat and allow the mixture to cool.
3. Lay a sheet of waxed paper on a flat surface, and spread the cornstarch mixture over the top. Lay a second sheet of waxed paper over the top of the cornstarch.
4. Roll the cornstarch with a rolling pin or press it with your hands.
5. Remove the top sheet of waxed paper.
6. Press the leaves firmly into the cornstarch mixture. Carefully remove the autumn leaves and enjoy the impressions left behind.
7. Cut around the leaf impression with a sharp knife. Let them dry



How to Make Plaster Molds of Animal Tracks

Things You'll Need

- Plaster of Paris
- Cup
- Water
- Cardstock paper strip

Instructions

1. Check out books on small animal tracks from your local library. Make sure the pictures are big enough to really see the detail.
2. Locate an area with a pond, stream or other water source where animals are likely to gather. Find a spot where the mud is soft but not too watery.
3. Go to your location early in the morning before tracks made during the night have been disturbed.
4. Take several small buckets, a supply of dry plaster of Paris and some water. Don't try and use the water from the stream or pond as you may disturb the fresh tracks.
5. Mix together enough plaster of Paris and water to make a batter that pours easy but isn't too thin.
6. Create a mold by encircling your track with the card stock paper strip.
7. Search around the water source for animal tracks in the mud. As you find tracks with nice detail, pour enough Plaster of Paris in them to fill the tracks completely. Try to get a pair of indentations rather than just a single track.
8. Leave the wet plaster in the tracks for about an hour to dry. When you come back, pop the tracks out of their natural molds and use your tracking book to identify what animals come to that water source to drink.

