# **Composting 101 Educational Pamphlet**

## **Composting Basics:**

- When making your compost pile, be sure to add 2-3 parts carbon materials (e.g. uncoated cardboard, grass clippings, leaves or brush) for every one part food scraps.
- Be sure all materials added to your compost are in small, easy to digest pieces.
  - Carbon-rich materials are the energy food for microorganisms in your compost
  - High-nitrogen materials provide the protein-rich components that microorganisms require to grow and multiply
  - Adding flour or sugar to your compost can help speed up the process. Flour and sugar are like fast food for microorganisms

### What to add to your compost system:

#### Carbon (Browns):

- Cardboard
- Paper egg cartons
- Dry leaves/Pine needles/cones
- Hay/Straw/Corn stalks/cobs
- Paper/Newspaper/Paper plates/Napkins/Paper bags
- Sawdust/Wood ashes/Twigs
- Tea bags/coffee filters
- Dryer lint/Cotton fabric
- Nutshells (avoid walnut)

### Nitrogen ("Greens"):

- Fruit scraps
- Vegetable scraps
- Eggshells
- Grass clippings/weeds/flowers/ houseplant trimmings/
- Animal manures (cow, chicken,etc.) No dog or cat manure)
- Seaweed
- Cooked plain rice/pasta
- Coffee grounds
- Bread (sometimes, avoid heavy oil or dairy-based

### Maintaining your Compost

- Compost is created fastest when turned regularly, be sure to mix your pile with a shovel to get the air flowing, this cannot be done too often (3-7 times a week is recommended)!
  - Microorganisms require a lot of oxygen to do their work efficiently. As the microorganisms begin to work, they will start consuming oxygen. Unless you turn or aerate your compost pile, they will run out of oxygen and become sluggish
  - Note: you want your compost to be damp but not wet! (a good rule of thumb is to keep the material as moist as a well-wrung out sponge)
    - Moisture is very important for the composting process, but too much and drown the microorganisms, and too little will dehydrate them
    - Using an enclosed container or covering your pile with a tarp will make it easier to main the right moisture level
  - It is also a good idea to add a bit of soil or finished compost to your processing compost. This adds more microorganisms to your pile.
- Temperature is also important for your compost. Heat is a by-product of intense microbial activity. It is an indicator that the microorganisms are munching on the organic matter. The temperature determines what types of microbes are active. Getting your compost "hot" (140 160 degrees F) is not critical, but it does mean your compost will be finished and usable within a month or so.
  - High temperatures also help to kill most weed seeds and harmful pathogens.
  - o Providing a concentrated dose of microorganisms and protein can help raise the temperature

### Satellite Composting Projects

Visit the sites below for steps on how to create your own at-home compost system:

### **Insulated 3 bucket system:**



https://www.appropedia.org/Kelsey\_3-lid\_5-gallon\_bucket\_design

### Small 3 jar system for composting with kids:



https://www.appropedia.org/Lorelei at home composting with kids

#### **Stacked Storage Bin System:**



https://www.appropedia.org/Hannah Stacked bin system

#### 2 Bay Overflow System:



https://www.appropedia.org/Sara June 2 bay pallet system