



POLLINATOR FREE SANDWICH ACTIVITY



INTRODUCTION

Pollinators are known to be responsible for 1 out of every 3 bites of food we eat daily. This makes pollinators essential to global food production. Unfortunately, many species of native pollinators are declining at an alarming rate. The activity below is designed to outline just how important pollinators are to making many of our favorite foods available for human consumption.

MATERIALS NEEDED

- Pictures of Sandwich Ingredients (Included)
- Answer Key (Included)
- List of pollinated plants (Included)

PROCEDURE



Step 1: Print out pictures of all ingredients and use scissors to cut out individual ingredients (photos).

Step 2: Lay out all the sandwich ingredients (photos) so that students will be able to see all choices available.

Step 3: Ask students to build their sandwiches using the photos of ingredients.

Step 4: After the students have built their sandwiches, remove all ingredients that are made possible by pollinators (use answer key provided).

Step 5: After you have removed all the ingredients that are made possible by pollinators, explain to the students that the remaining ingredients would be the only items available for consumption in a world without pollinators.

Step 6: Go over the entire list of pollinated plants so students can learn about other popular foods made possible by pollinators.



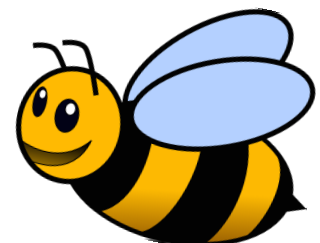
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ANSWER KEY

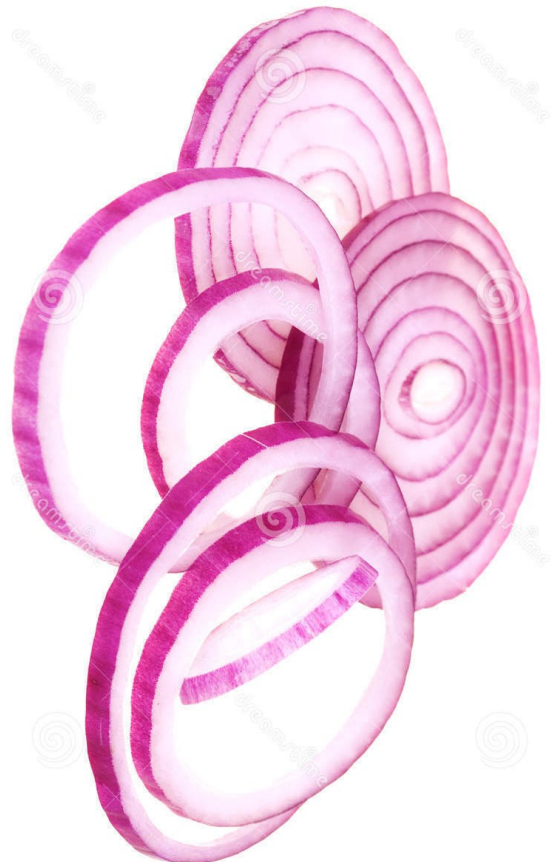
Pollinated Ingredients:

- Lettuce
- Cheese
- Tomato
- Onion
- Cucumbers
- Pickles
- Olives
- Jalapeno
- Green/Red/Yellow Peppers
- Mayonnaise
- Mustard
- Miracle Whip













Crops/Food Dependent Upon or Benefited by Insect Pollination

Legumes and Beans

Black-eyed Pea, Broad Bean, Cacao (Chocolate), Coffea (Coffee), Cowpea, Kidney Beans, Lima Bean, Lupines, Mung Bean, Green Bean, Soybean relatives

Vegetables

Artichoke, Asparagus, Beet, Broccoli, Brussels Sprouts, Cabbage, Cardoon, Carrot, Casaba Melon, Cauliflower, Celery, Celery, Chayote, Chervil, Coriander, Crenshaw, Cucumber, Eggplant, Endive, Honeydew, Kale, Leek, Lettuce, Muskmelon, Okra, Onion, Parsnip, Peppers, Persian Melon, Pumpkin, Radish, Rutabaga, Squash, Tomato, Turnip, Vegetable Sponge, Watermelon, White Gourd

Fruits, Berries and Nuts

Acerola, Almond, Apple, Apricot, Avocado, Banana, Blackberry, Blueberry, Cantaloupe, Cashew, Cherry, Chestnut, Coconut, Crabapple, Cranberry, Currant, Date, Elderberry, Fig, Gooseberry, Grape, Grapefruit, Guava, Jujube, Huckleberry, Kiwi, Kola nut, Lemon, Lime, Litchi, Loquat, Macadamia, Mamey Sapote, Mango, Nectarine, Olive, Orange, Papaw, Papaya, Passion Fruit, Peach, Peanut, Pear, Persimmon, Pomegranate, Plum, Prune, Quince, Raspberry, Strawberry, Tangelo, Tangerine, Tung, Vanilla,

Herbs and Spices

Allspice, Anise, Black Pepper, Caraway, Cardamom, Chive, Clove, Coriander, Dill, Fennel, Lavender, Mustard, Nutmeg, Parsley, Pimento, Tea, White Pepper

Clovers, Forage Crops, Oils, Seeds, and Grains

Alfalfa, Alsike Clover, Arrowleaf Clover, Ball Clover, Berseem Clover, Black Medic, Buckwheat, Canola, Cicer Milkvetch, Crimson Clover, Crown vetch, Flax, Kenaf, Kidney Vetch, Kudzu, Lespedeza, Oil Palm, Persian Clover, Pigeon Pea, Red Clover, Rose Clover, Safflower, Sesame, Strawberry Clover, Subterranean Clover, Sunflower, Sweet Clover, Sweetvetch, Trefoil, Vetch, White Clover

Other

Cotton & Dairy Products (Dairy cows eat alfalfa pollinated by leafcutter and honey bees)

Sources: *Pollinator Partnership, Bee Source, USDA*