

# COMET MYSTERY BOXES

Developed by the Stardust-NEXT Education and Outreach Initiative

## DIRECTIONS FOR MAKING THE MYSTERY BOXES

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### Materials:

- a. 3-4 boxes (shoe or packing boxes work well)
- b. Filling for individual boxes
  - 1 block of ice (frozen in a pie tin works well)
  - 2 cups potting soil – add rocks, packing material, or sand to create more texture
  - 2 cups Fiber or Poly-fill
  - 1 potato (look for odd shapes or ones with a crater)
- c. Trays or bags (to hold box filling materials)
- d. Scissors
- e. 3-4 pieces of felt, fabric, or paper to cover holes made in boxes
- f. Heavy-duty tape
- g. Trash bags for lining boxes.

### Build the Comet Mystery Boxes:

#### Step 1:

Cut a hole in all of the boxes. Be sure the hole is large enough to fit your hand through!

- a. Mark a circle on the outer set of flaps.



- b. Cut the marked area so you have a hole on the outer set of flaps. Use this hole as a template to cut on the inner flaps of the box.



- c. Cut the marked area so you have a hole all the way through one side of the box.



**Step 2:**

- a. For box A (containing the block of ice)
- Tape the flaps of the box around the hole closed.
  - Cut the flaps away from the other side of your box completely so you can easily place it over the tray holding the ice block.
- Note: having the tray will make it easy for you to dispose of the ice (and water) after the activity is done.*

b. For all other boxes:

- Tape plastic bag(s) to the inside of the hole in the box so material can be placed inside before closing
- Place the material into the bag according to which box it is:
  - Box B – Potting Soil
  - Box C – Fiber Fill
  - Box D – Potato
- Tape the box closed on both sides, being careful to leave the opening for people to reach through!



**Step 3:**

Cut an “X” in the center of a felt square, a piece of fabric, or construction paper. This will be used to cover the box hole and conceal the mystery material.



**Step 4:**

Decorate and finish the boxes.

- a. Spray paint the boxes black and put comet or solar system images on them.
- b. Place the felt, fabric, or paper on top of the box holes and conceal the mystery material.

