

Southeast Alaska Discovery Center

Art to Go – Paper Snowflakes and Paperweights

Cutting paper snowflakes is common childhood memory for many parents and educators; in our youth most of us did not realize the educational experience we received alongside the fun. This Art to Go lesson can be simply a fun winter activities or used to build scientific and geometry knowledge and vocabulary, depending on the age of the student.

The educational goals of this art to go lesson include reinforcement of previous learning about shapes of snowflakes, weather patterns that form snow, and provides opportunity for skills practice in cutting using scissors and pattern formation. Helpful prior knowledge (or instruction before activity) includes describing weather patterns needed for snow formation, naming snowflake shapes using scientific descriptions (hexagon, needles, columns, dendrites, irregular and plates) and recognizing symmetry in snowflake shapes. (See glossary at end of document)

Supply List:

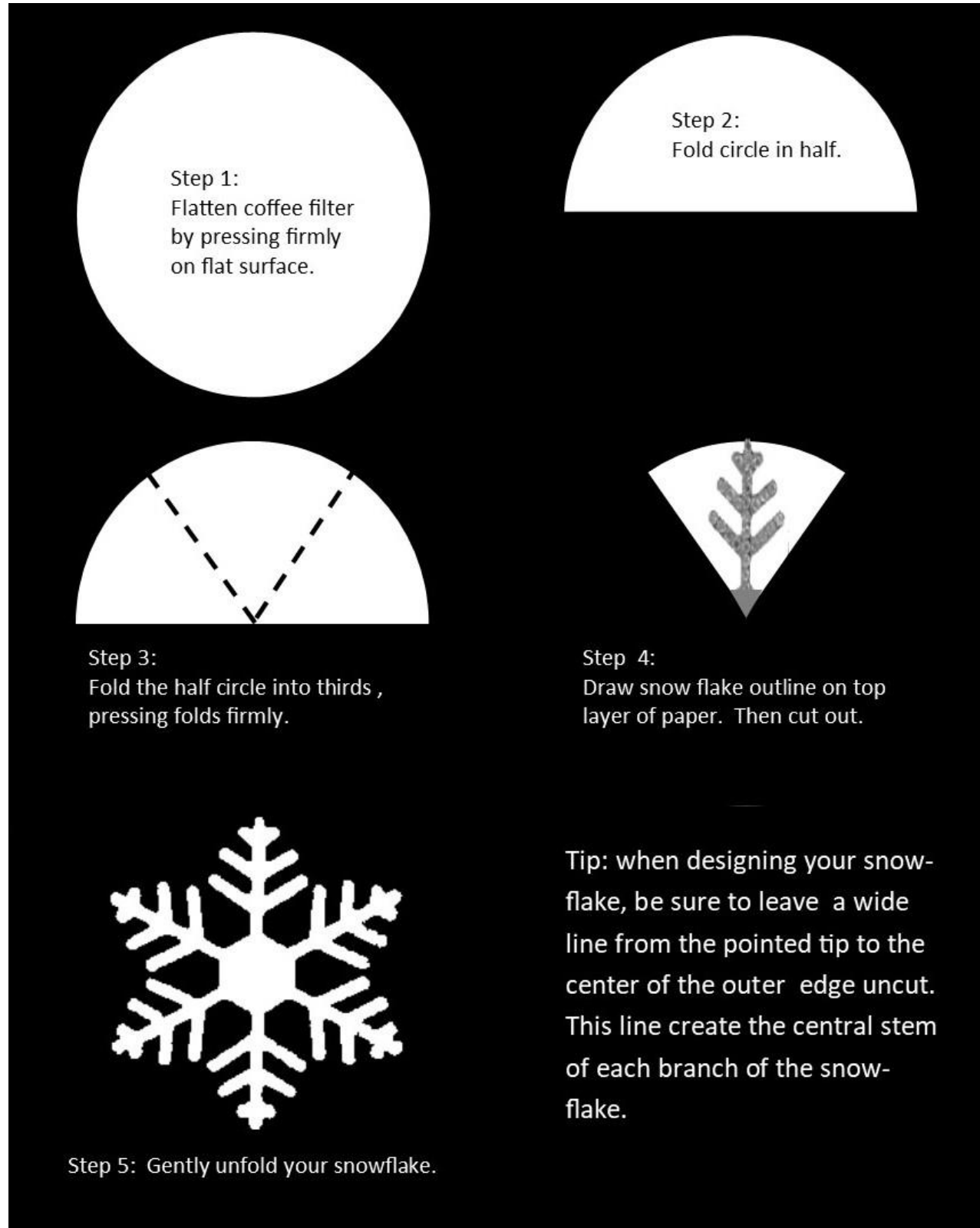
- Round (basket) coffee filters or paper circle
- Scissors
- Pencil
- A small clean rock (palm size – about 3” in diameter)
- Acrylic paint – one base color and white
- Toothpicks, cotton swabs, or paint brushes
- Spray varnish or clear acrylic (optional)

Notes:

- ✓ This pair of activities can be used to fill a long art period or multiple days. The snowflake cutting activity fits nicely between painting the base color on your rock/paperweight and adding the snowflake.
- ✓ Finding the “perfect” rock for your paperweight is a great time to explore local beaches or streams. It also provides the opportunity to explore why some stones are rounded and smooth and some are flat, rough or oddly shaped. This can be a mini lesson about erosion for your student. It is important to wash your rock with warm soapy water and allow it to dry for at least a day prior to painting. You may also choose to skip painting the base layer if you wish and simply paint the snowflake directly onto your rock surface.
- ✓ The rock can also be replaced with dried clay forms or molded plaster forms. It is important that these also have been given time to completely dry before painting.



Coffee Filter Snowflake Instructions:



Step 1:
Flatten coffee filter
by pressing firmly
on flat surface.

Step 2:
Fold circle in half.

Step 3:
Fold the half circle into thirds,
pressing folds firmly.

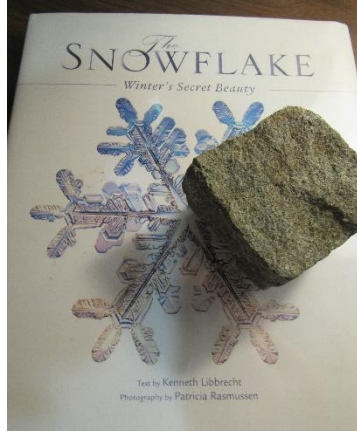
Step 4:
Draw snow flake outline on top
layer of paper. Then cut out.

Tip: when designing your snowflake, be sure to leave a wide line from the pointed tip to the center of the outer edge uncut. This line create the central stem of each branch of the snowflake.

Step 5: Gently unfold your snowflake.

Snowflake Paperweight Instructions:

1. Take a walk on the beach or along a stream. As you walk look for a rock with at least one flat or smooth surface that is about the size of your palm.



a.

2. Research snowflake shapes. There are excellent books at the library or research online.
3. Wash your stone in warm soapy water to remove loose dirt and sand. Allow your rock to dry for at least one day in a warm place.
4. Using acrylic paint, cover the entire surface of your rock with the base color of your choice. Allow to dry completely before step 5.
 - a. If you picked a beautiful rock and do not want to add a base color you can skip this step. The rock, I chose, for this example project has some sparkly quartz inclusions that I did not want to cover up.
5. Using a pencil draw a dot at the center of your rock. Then draw six lines, evenly spaced, from the dot toward the edges of your rock.



a.

6. Place a small amount of white acrylic paint onto a plate or scrap of cardboard.
7. Using cotton swabs, toothpicks, or small paint brush place a dot of white paint at the center of your outline.
8. Continue to add dots of various sizes along the lines. Then add smaller dots to create a repeating pattern, make each branch look like the first.
9. Allow to dry completely. If desired spray with clear coat of varnish or acrylic.

Glossary



Columns - Crystals that are hexagonal (6 sided) columns. These crystals are small and thicker or longer than plates.



Dendrites - Dendritic means "tree-like". Dendrite crystals are plate-like snow crystals that have branches and side branches. These snowflakes are fairly large and are easily seen with the naked eye.



Hexagon – a six-sided shape



Irregular Crystals – This is the most common snow crystal form. They are usually small clumps of ice crystals. These crystals often do not have symmetry like plates, dendrites or columnar crystals.



Needles - Needles crystals take the shape of slender columns of ice that form when the temperature is around 23 °F.



Plates – Common thin snowflakes that are plate-like crystals with six broad arms that form a hexagonal shape. The faces are often ornamented with wonderfully intricate and symmetrical markings.

Symmetrical – a form, shape, or object made up of exactly similar parts facing each other or around an axis.

A note about snowflake shapes - The shape of the snowflake is influenced by the temperature and humidity at which it is formed.