METEORITE ACTIVITIES

On August 13, 1904, a meteorite landed in Shelburne, Dufferin County. The discovery of two large meteorite fragments caused excitement both in Shelburne and the scientific community. It wasn't long before scientists travelled from across North America to see the meteorite fragments for themselves. Both fragments were purchased by different scientists, and since then smaller fragments of the Shelburne Meteorite have been donated to more than 20 public collections worldwide!

Learn more about the Shelburne Meteorite by visiting the **online exhibit**.

WHAT'S INSIDE?

Explore, learn and play with these meteorite-themed activities!

1. Meteorite Experiment

2. Moon Craters Art Activity

3. How to Draw a Meteor Tutorial

4. Meteorite Race Game

I. METEORITE EXPERIMENT

What you will need:

- Baking tray
- White flour
- Cocoa
- Modeling clay
- Marbles
- Tape measure or ruler
- Food scale (optional)

Tip: This can get messy! You might want to do this experiment outside.

Instructions:

Create the Earth's surface on the baking tray by laying out 2-3cm of flour and sprinkling cocoa on top.

Make meteors of various sizes out of modeling clay. You can add weight to some of your meteors by covering marbles in clay. Optional: use a scale to measure the weight of each meteor and record it on the chart.

Measure how far you want your meteorite to fall (drop distance). Record this number.

Drop a meteor in the cocoa and observe its impact. Notice how much dust was created. Carefully remove your meteor and use your tape measure or ruler to measure the diameter of the crater.

Repeat your experiment a few times with meteors of different sizes and weights from different heights. Which meteors made the biggest craters? Which meteors created the biggest clouds of dust? How did changing the drop distance affect the impact? How does the weight of the meteor affect the impact?

METEORITE EXPERIMENT DATA CHART

Name: _____

Meteor Size / Weight (kg)	Drop Height (cm)	Size of Crater (Diameter in cm)	Observations

Note: If you do not have a scale to weigh your meteors, you can record them from “lightest” to “heaviest”.

2. MOON CRATERS ART ACTIVITY

Craters on the moon are caused by asteroids and meteorites colliding with the lunar surface. Since the moon has no atmosphere, craters stay in place and unchanged. The Earth's weathering, water and vegetation work to disguise craters.

What you will need:

- Aluminum pie plate
- Plaster of Paris
- Water
- Stir stick
- Aluminum foil
- Pebbles, marbles
- Paint and brushes (grey/silver, black and white)

Tip: This can get messy! You might want to do this experiment outside.

Instructions:

Mix up Plaster of Paris according to instructions. A thicker mixture is better.

Pour the mixture into your pie plate. Do not fill right to the top.

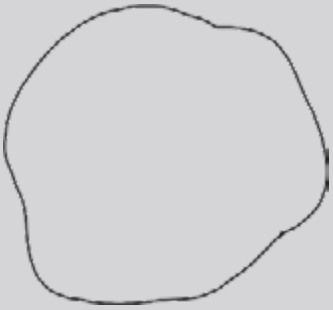
Wrap pebbles or marbles in aluminum foil to make meteors. Drop them into the mixture.

Carefully remove the meteors, leaving behind the craters they created. Let the mixture dry.

If desired, paint your moon surface and craters.

HOW TO DRAW A METEOR

1.



Draw an irregular rock shape.

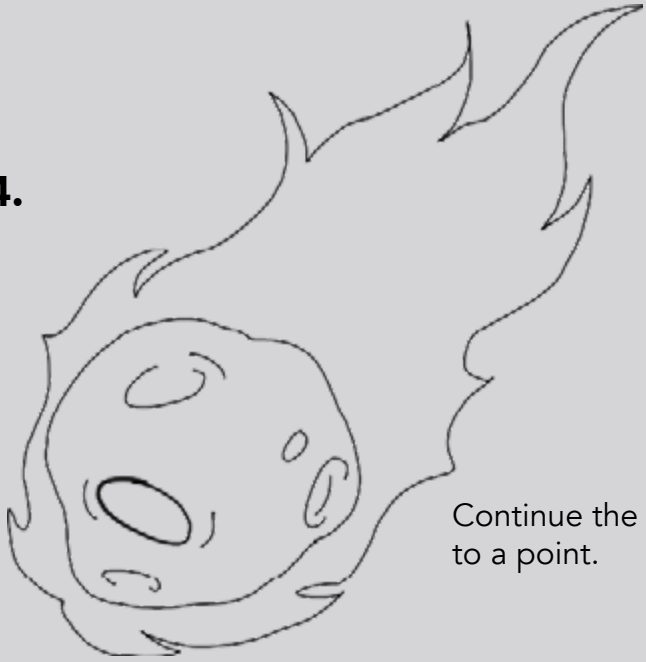
2.

Add details to the meteor.

3.

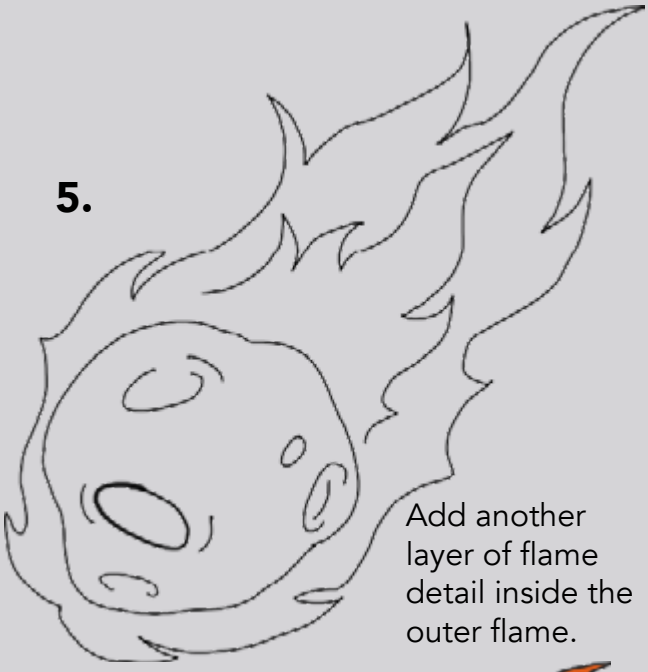
Begin to add flame around the meteor.

4.



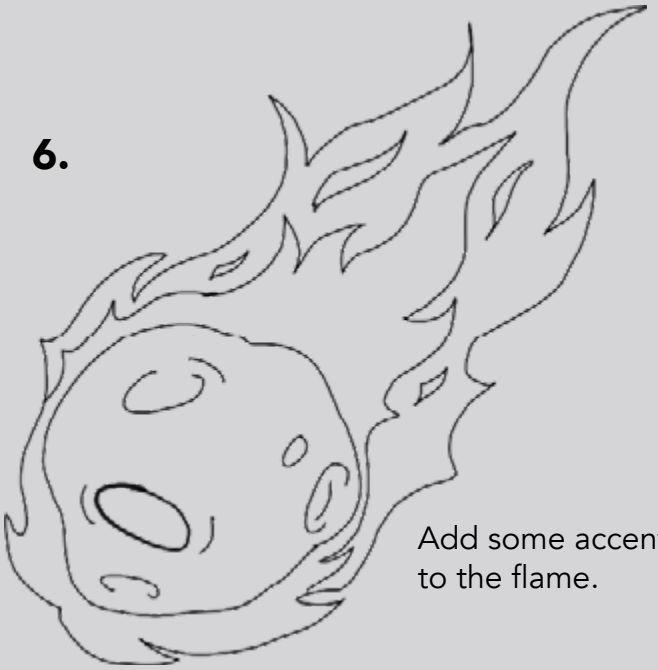
Continue the flame to a point.

5.



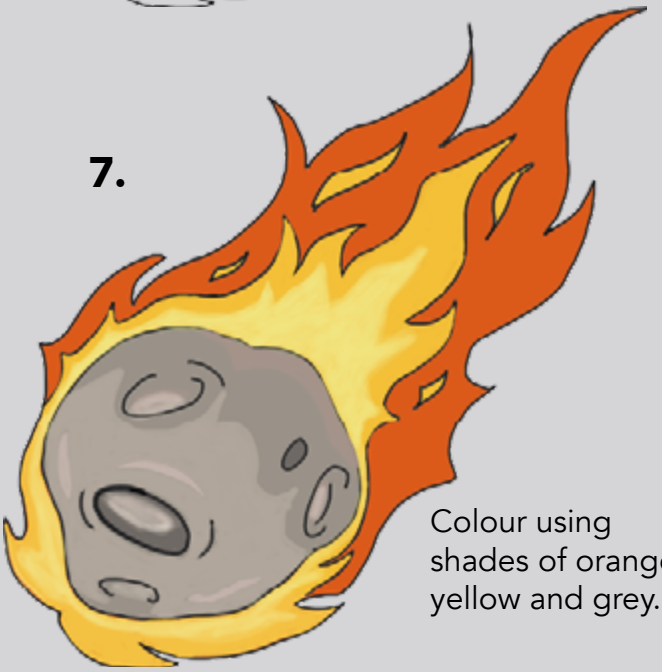
Add another layer of flame detail inside the outer flame.

6.



Add some accents to the flame.

7.



Colour using shades of orange, yellow and grey.

METEORITE RACE GAME

What you will need:

- Die template printout
- Score sheet printout
- Laminator (optional)
- Markers

Instructions:

Cut out the die template and images.

Paste images onto the die template.

Fold and glue the die together.

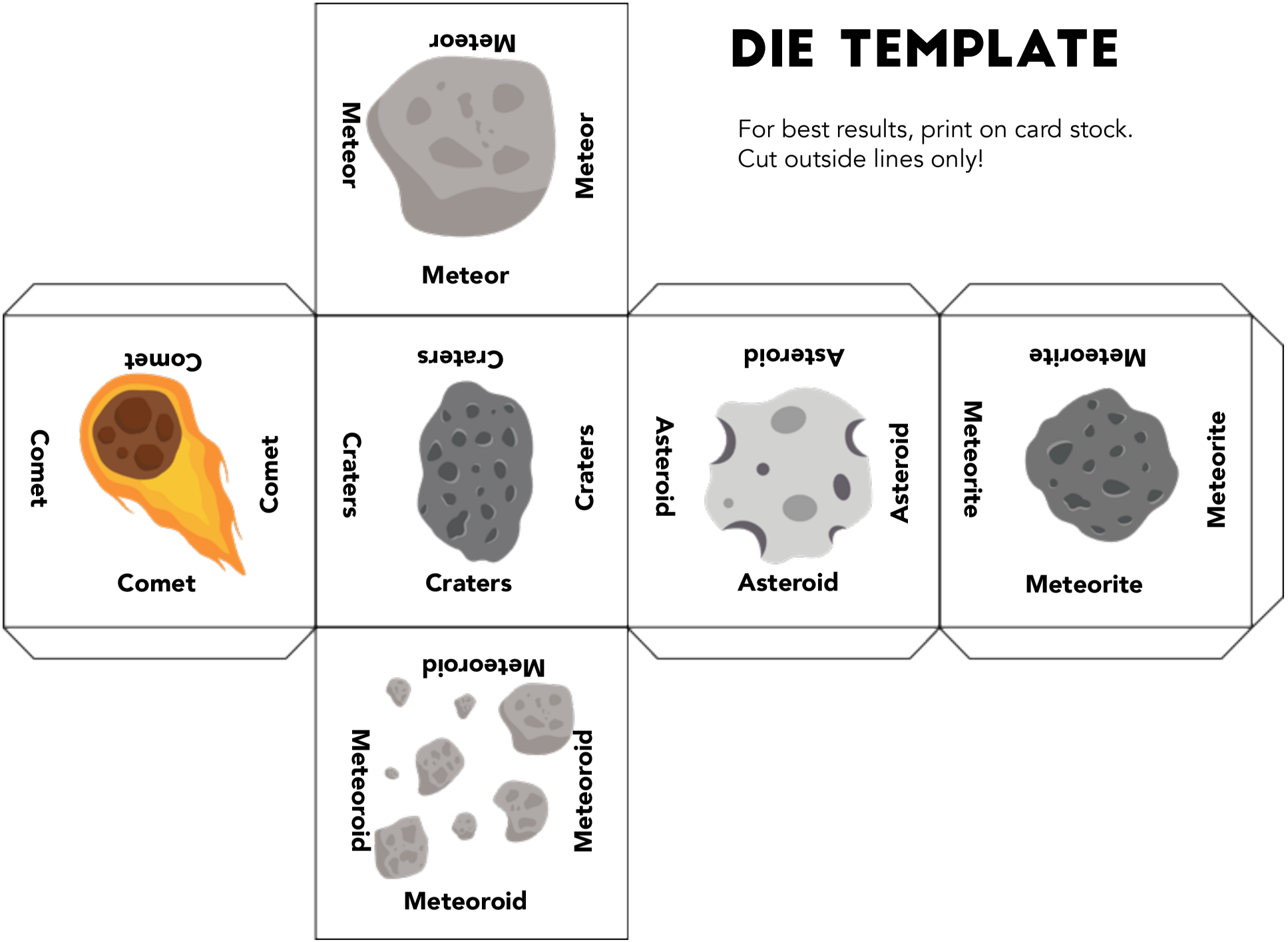
Optional - laminate the score sheet if you want to be able to use it again.

Game play:

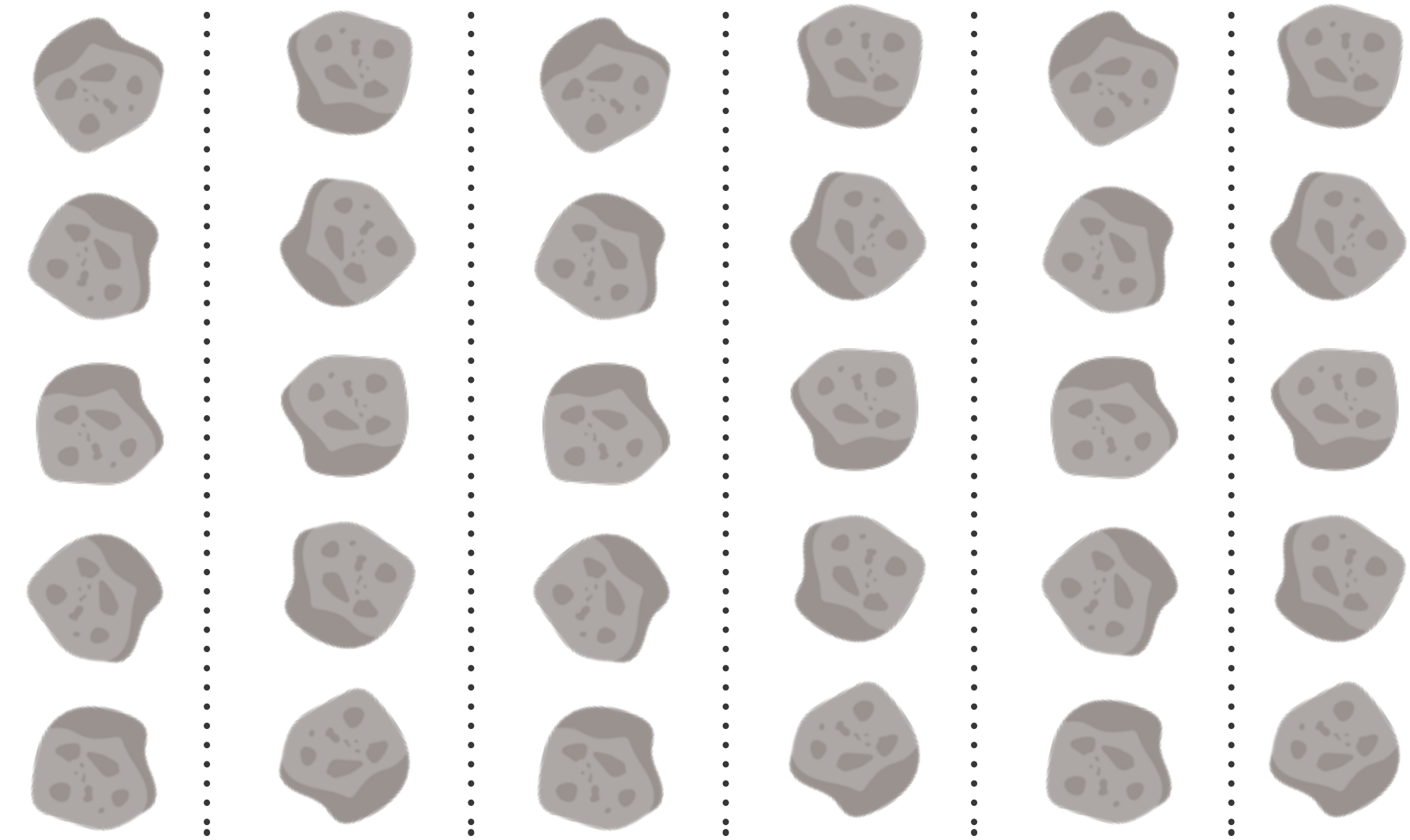
Players role their die and record the result by crossing off a meteor on their score sheet. The first player to cross off all the meteors in one column wins.

DIE TEMPLATE

For best results, print on card stock.
Cut outside lines only!



METEORITE RACE



Asteroid

Meteoroid

Comet

Meteor

Meteorite

Craters

MUSEUM OF
DUFFERIN