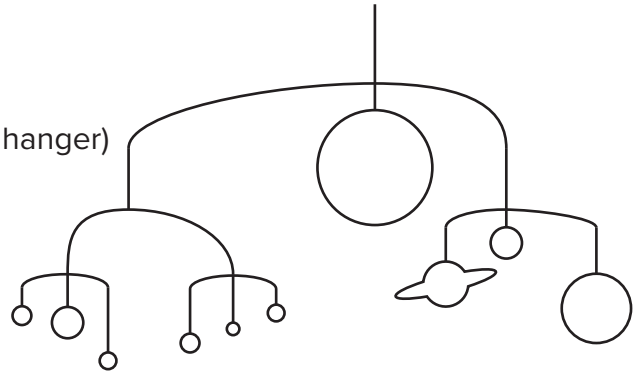


# Make your own space mobile

Cut out and glue together the matching front and back sides of the Sun and 9 planets to make your own Solar System mobile, then follow the instructions below.

## What you'll need:

- Several short sticks, rods, or wire (like a coat hanger) about 12 inches long each
- Yarn or string
- Clear tape
- Glue stick
- Scissors
- Cardboard, construction paper, or card-stock
- Pens, markers, crayons, pencils



## What to do:

If you have not done so already, print and cut out the Solar System shapes and glue the matching sides together (Note: the Sun and planets are NOT to scale). If you do not have a printer, you can also draw, decorate, and cut out your own designs for your mobile. When making your own design, you can make a perfect circle for your planets by using jar lids or large cans to trace around. Stars, like our Sun, are great big balls of gas, so big circles will work for those, too.

Make a small hole in the top of each object with a hole punch or a pencil. Tie a piece of string or yarn (12-24 inches) through the top of each decoration.

Tie the other end to a stick to attach two decorations to each stick – one on each end. Do this for at least two sticks.

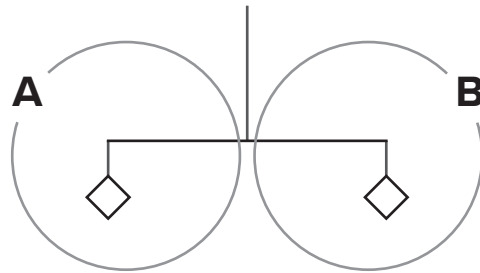
Tie a piece of string or yarn in the middle of each of your decorated sticks. Tie the other end of each of those pieces to either end of a third stick. Hang the mobile and adjust the positions of the pieces of yarn to make it balance.

Add as many more levels to your mobile as you want. Does it get more difficult to make it balance when you add more levels? Do heavier objects need to be hung closer to or further away from the mid-point to make the mobile balance?

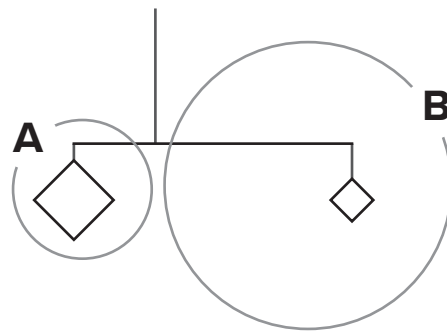
Artists like Alexander Calder (1898-1976) made both large and small mobiles from metal, wood, and plastic. What other materials can you use to make your mobile?

# Some great tips on mobile design

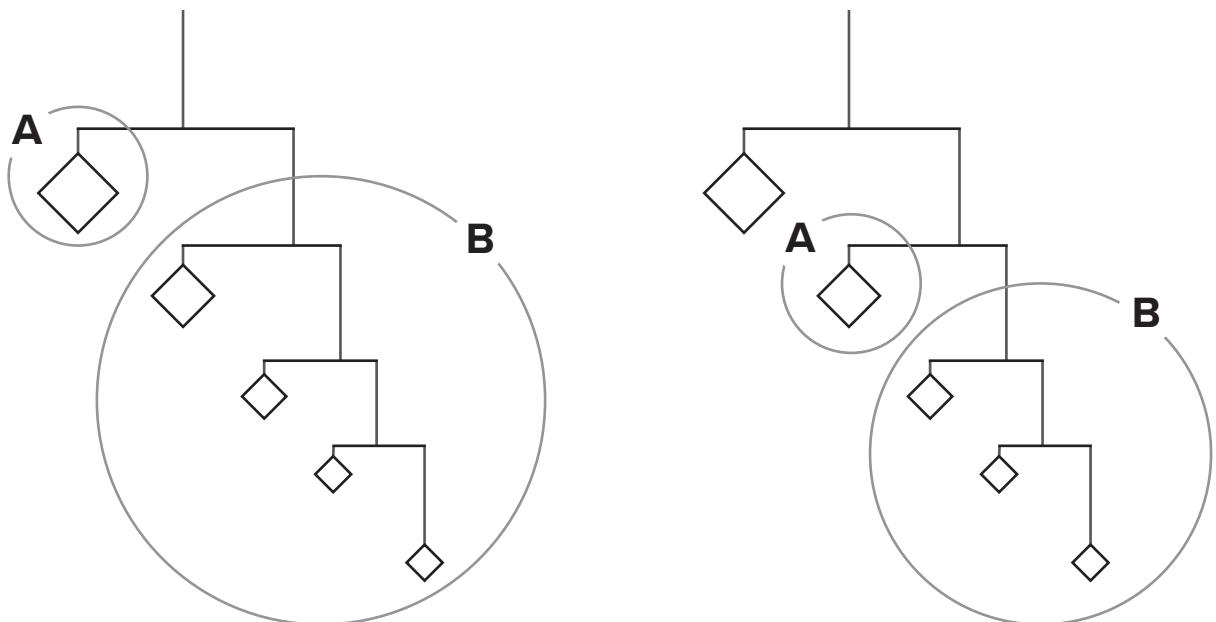
Part A and part B are equal – neither lighter, nor heavier than each other so the balance point is right in the middle:



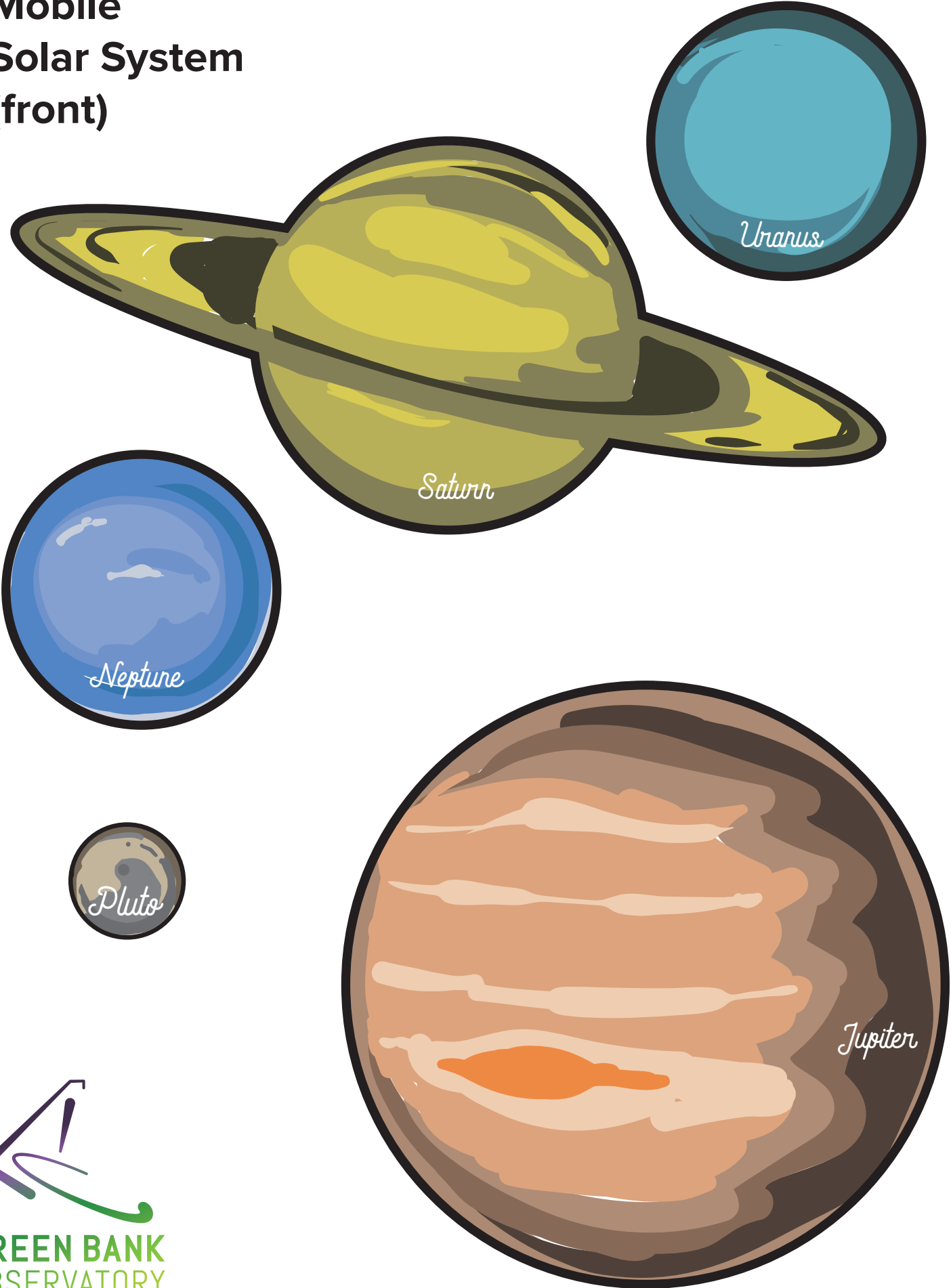
Part A is heavier than part B – The balance point moves closer to part A, the heavier part:

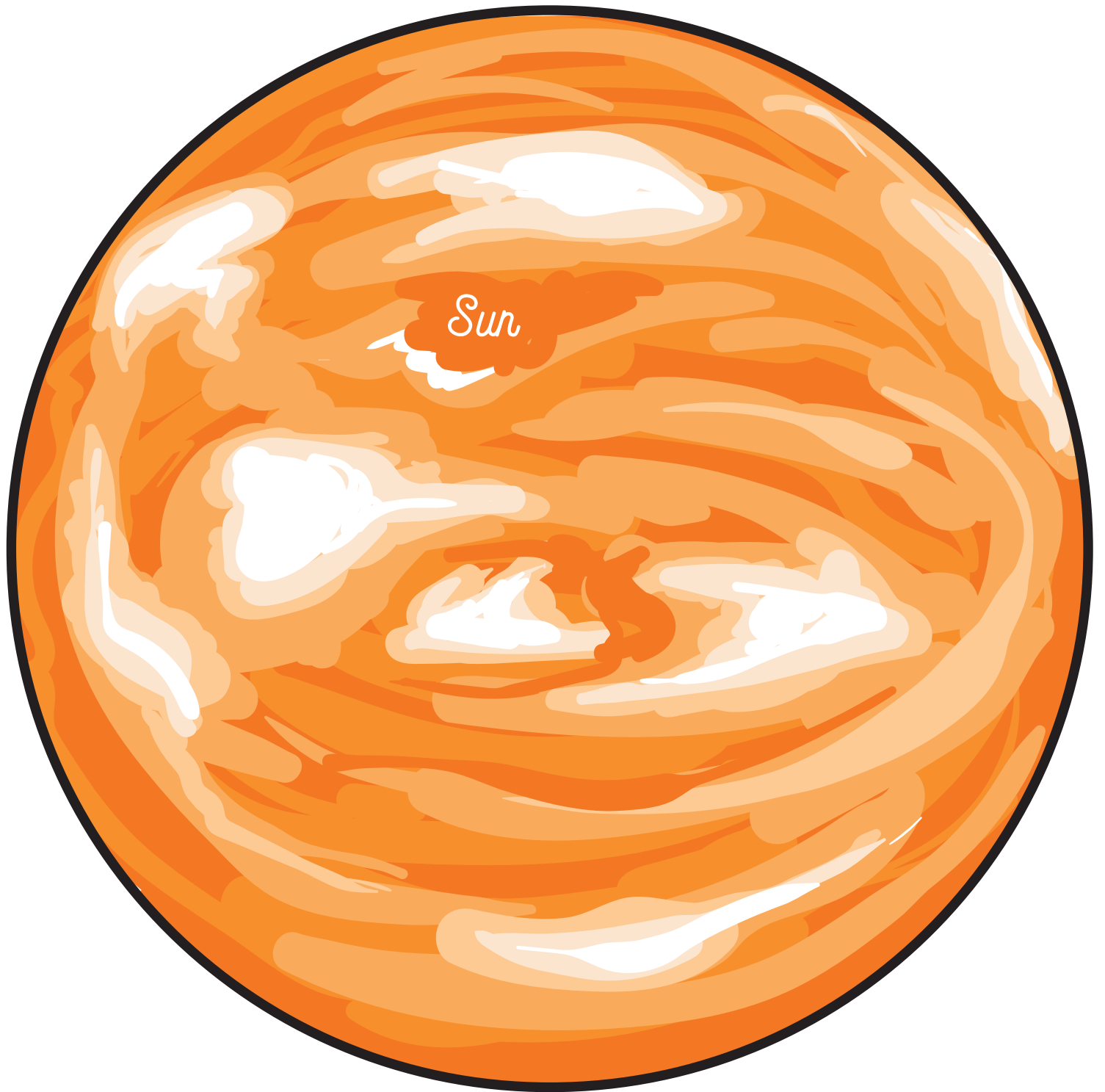


The trick is to always build mobiles from bottom to top, balancing out each section as you go. Find the balance point between the two lowest elements, then add another element section above the last. You do not need to weigh the parts, just make sure they balance. Use your finger or a string tied to the stick/wire, and move it back or forth until you find the balance point.



**Mobile  
Solar System  
(front)**





**Mobile  
Solar System  
(back)**

