

**INSTRUCTIONS****1. Divide the Entire Ball of Play-dough into 10 Equal Parts**

*You may find it easiest to start by rolling the ball into one big hot dog shape.*

- Combine 9 parts together and put them into the Jupiter box.

**2. Cut the Remaining Part into 10 Equal Parts**

- Take 9 parts and combine them with the ball in the Jupiter box.

**3. Cut the Remaining Part into 10 Equal Parts**

- Take 9 parts and combine them with the ball in the Jupiter box.

**4. Cut the Remaining Part into 10 Equal Parts**

- Put 4 parts into the Earth box.
- Put 1 parts into the Mars box.
- Take 4 parts and combine them with the ball in the Jupiter box.

**5. Cut the Remaining Part into 10 Equal Parts**

- Put 1 part into the Io box.
- Put 1 part into the Moon box.
- Put 1 part into the Europa box.
- Take 2 parts and combine them with the ball in the Callisto box.
- Take 3 parts and combine them with the ball in the Ganymede box.
- Take 2 parts and combine them with the ball in the Jupiter box.

**5. Find 2 left over specks of Play-dough**

*Specks should be size of a grain of salt*

- 1 speck will be Phobos
- 1 speck will be Deimos
- Put specks into the Phobos & Deimos box.

**Finally:**

Now that you have divided the play-dough to represent the planets by volume, roll the pieces in each planet's box into balls to best represent the shapes of the planets.

What do you notice about the size of the planets and their moons?

What do you wonder?

What surprised you?

