

CH:THE ORIGIN AND EVOLUTION OF THE EARTH

The Big Bang Theory, also called as expand universe hypothesis. Edwin Hubble in 1920 provided the evidence that the universe is expanding. The galaxies move farther as the time passes.

Laboratory The Expanding Balloon

In The Expanding Universe, Charles Jenkins tells us that galaxies are moving away from each other. The universe appears to be growing larger.

We can use a balloon to help us understand what is going on in the cosmos. In this activity, the balloon represents the universe. Bits of tape on the surface of the balloon represents some of the galaxies located throughout the universe.

Create your own expanding universe with these simple materials

Tools & Materials

- round balloon
 - Masking tape
 - tape measure
 - pen or pencil
- clothespin (optional)



The Experiment

Here's what to do:

1. Blow up the balloon part way. The partially-inflated balloon represents the universe. Imagine that there are many galaxies both inside the balloon universe and on its surface. Have someone hold the mouth of the balloon closed so that it doesn't deflate, or use a clothespin to clamp the rolled-up mouth closed.



2. Tear off three small bits of masking tape, each about the size of your little fingernail. Draw around dot in the middle of each bit of tape to represent a galaxy.

Label each galaxy as A, B, or C.



3. Place the three bits of tape on the balloon so that the distances between them are all different. These represent three of the many galaxies in the universe.



4. Use your tape measure to find the distance from each masking tape galaxy to each of the others. Also, measure the circumference of the balloon at its widest part. This gives you an indication of the size of your balloon universe at this time. Record these measurements for Round 1.

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