

# Measuring Space

## How is the amount of space occupied by matter measured?

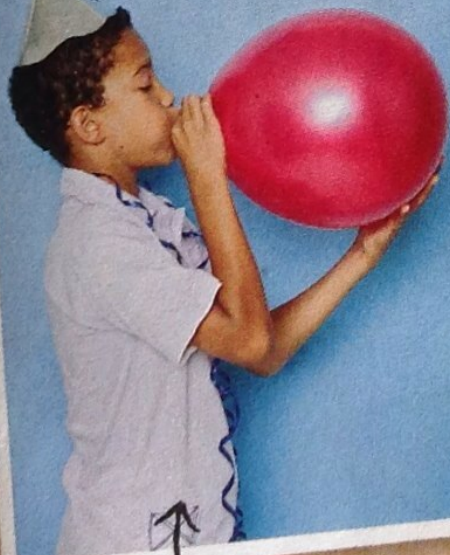
All matter takes up space. The amount of space that an object takes up, or occupies, is known as the object's **volume**.

Some objects can have a large volume without having a large mass. In the photos, the bowling ball and the balloon have about the same volume, but the bowling ball contains a lot more mass than the balloon. You know this because the bowling ball weighs much more than the balloon. The different masses take up about the same amount of space, so both objects have about the same volume.

**Active Reading 9 Define** What does volume measure?



The bowling ball has a lot more mass than the balloon.



The balloon is similar in volume but has much less mass than the bowling ball.

### Think Outside the Book Inquiry

**10 Infer** Big things can look very small when seen from far away. Describe how you know big things far away aren't really small.