

CHAPTER 3	Launch Lab: Balloon in a Bottle Answer Key	BLM 3.0.4A
ANSWER KEY		

Answers to Analysis Questions

1. Step 3 confirmed that you were unable to inflate the balloon very much at all. The air inside the bottle was compressed when you blew up the balloon.
2. There is a huge difference. With a hole in the bottle you can blow up the balloon so it completely fills the inside of the bottle, because the balloon pushes the air out of the bottle as the balloon gets bigger. Without a hole in the bottle, the expanding balloon compresses the air inside the bottle until the pressure matches the maximum pressure you can exert by blowing.
3. This activity demonstrates that gases occupy space. The balloon cannot expand very far into the bottle because the space in the bottle is already taken up by air.