**5.1 Pressure and Molecular Motion**

**GRADES 6-8**

**Collect data on the bounce back height when the ball is dropped from 2 meters.**

***[A properly inflated ball will bounce back 115-165 centimeters.]***

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|  | **Flat** | **3 PSI** | **6 PSI** | **9 PSI** | **12 PSI** | **15 PSI** |
| **Futsal**  **Ball** |  |  |  |  |  |  |
| **Soccer**  **Ball** |  |  |  |  |  |  |

**Based on the data above, answer the following questions:**

1. **What are some disadvantages of an under-inflated ball?**
2. **What are some disadvantages of an over-inflated ball?**
3. **Predict what will happen to the bounce of the ball if you continue to increase the pressure past 15 PSI. Use evidence to support your answer.**

**Draw a molecular diagram of the ball at 3 PSI vs 15 PSI.**

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