**Noteguide for MOMentum (Videos 7A) Name**

**Momentum:**

 Head on collision - small vs big

Example: What is the momentum of a 145 g baseball going 40. m/s?

Example: 60 kg Fran is running at 4 m/s when she collides with 80 kg Joe. They hit and stop dead, so how fast was Joe going?

Conservation of momentum:

Whiteboards:

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| 1. What is the momentum of a 22 g swallow going 5.2 m/s (0.11 kg m/s) | 2. What velocity must a 6.5 gram bullet have for its momentum to be 5.8 kg m/s? (890 m/s) |
| 3. A bowling ball has a momentum of 43.6 kg m/s when it is going 12 m/s. What is its mass? (3.6 kg) |