**Information Sheet for Teachers**

**A Virtual STEM (Science, Technology, Engineering, Mathematics) Initiative:**

***Everyday Biomechanics***

**TOPIC:**

* Biomechanics – A unique area of science that combines biology and physics with movement.

**THE RESOURCE:**

* A 25-minute interactive video designed for grades 5/6 students.
* The principles are explained by local athletes and activity experts.
* Breakout activity opportunities and sheets provided for students to apply information from the video.

**CURRICULUM AREA:**

* STEM including concepts in math and science combined with physical activity

**FORMAT:**

* The video introduces 3 different topics separated by a brief pause. It is intended that during this pause, the class can participate in breakout activities that apply the newly learned topics. Each breakout activity is anticipated to take approximately 30-40 minutes. Therefore, it is recommended that the video and activities be completed in 3 separate class sessions.

**Video breakdown:**

* Introduction – 2 minutes
* Topic 1: Slack Lining – 6 mins
  + Breakout Activity Offline for Topic 1: 30-40 min
* Topic 2: Basketball Shooting – 6 mins
  + Breakout Activity Offline for Topic 2: 30-40 mins
* Topic 3: Hoop Dancing – 8 min
  + Breakout Activity Offline for Topic 3: 30-40 mins

**WHAT YOU WILL NEED:**

* Equipment to show the video.
* YouTube link: <https://youtu.be/q_xGzoAOW5E>
* Space to move around (either inside or outside)
* Pencils or pens to complete the activity sheet prompts
* Basketball hoop

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| **Activity #1** | **Activity #2** | **Activity #3** |
| * Activity Sheet #1 | * Activity Sheet #2 * Basketballs (1/student) * Tape (to measure jump height) * Measuring tape (@ least 40 cm long) * Calculator (depending on math skill) | * Activity Sheet #3 * Hula hoops (2/student) |

**FOLLOWING ACTIVTY COMPLETION:**

* Please consider filling out a 30-second survey indicating ~ how many students took part in this outreach initiative. Survey link: <https://docs.google.com/forms/d/e/1FAIpQLSfwVK7G4sSHOWsIezzwDKkW4ybmp1bpG4P2LmuAa093p1-LQw/viewform>