**Supplemental Digital Content 1.** Activity Protocol

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity Type** | **Activity Trial** | **Intensity** | **Description of Activity Trial** |
| Resting | Lying down | Sedentary | Lying down awake on a mattress in supine position - arms at sides - rest for 10 min. |
| Sitting | TV viewing | Sedentary | Watching a movie in a comfortable chair. Instructed to minimize body movements. |
|  | Handheld e-game | Sedentary | Sitting on a chair at a desk playing an e-game on a handheld device. |
|  | Writing/coloring | Sedentary | Sitting on a chair at a desk, 5-8 y: coloring on paper using pencils, 9-12 y: copying words on a pad of paper using a pencil. |
|  | Computer game | Sedentary | Sitting on a chair at a desk playing an educational computer game. |
| Lifestyle | Getting ready for school | Light | Get dressed, set table, pour food, pack up, brush teeth, pack bag, leave for school. |
|  | Standing class activity | Light | Standing activities with minimal movement such as writing/drawing on a white board. |
|  | Dancing  | Light | Following a video with dance step instructions (Zumba® fitness). |
|  | Tidy up  | Moderate | Tidying up a 4x5 m area: pick up clothes, towels, toys and sport equipment and return them into boxes. |
|  | Basketball | Moderate | Shooting a basketball using a 2.29 m adjustable hoop, chase the ball within a 4.9x4.6 m area and bounce back to the start position at the boundary line apposite from the hoop. |
|  | Soccer | Vigorous | Kicking a foam soccer ball on a 5 m distance between a 1 m wide goal after dodging between a straight line of 5 cones (1 m apart). Instructed to jog back to start position after kicking the ball. |
|  | Locomotor course | Vigorous | Continuously completing a course including 4x 2-foot jump, jogging and sliding between cones around a 4x9.5 m area. |
| Ambulatory | Slow walk | Light | Walking slowly at a self-selected comfortable speed around a 45 m indoor track. Examiner regulates constant speed by recording lap times. |
|  | Brisk walk | Moderate | Walking briskly at a self-selected brisk comfortable speed around a 45 m indoor track. Examiner regulates constant speed by recording lap times. |
|   | Running | Vigorous | Run at a self-selected comfortable speed around a 45 m indoor track. Examiner regulates constant pace by speed lap times. |

All activities are completed for 5 min except for lying down (10 min)