

The Compendium of Energy Expenditures for Youth
(energy cost values derived from child measures are in bold)

| Code | Activity | MET | Rationale for energy cost | Reference |
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| SEDENTARY | | | | |
| 112020 | listening to music/radio – lying | 1.2^a | lying awake measured in 5 child studies, n = 130 | [21-25] |
| 122160 | listening to music/radio – sitting | 1.3 | listening to radio, sitting measured in 1 child study, n = 22 | [20] |
| 110150 | lying awake | 1.2 | lying awake measured in 5 child studies, n = 130 | [21-25] |
| 113040 | reading - lying down | 1.2^a | lying awake measured in 5 child studies, n = 130 | [21-25] |
| 123110 | reading - sitting | 1.3 ^a | Ainsworth 09030 - sitting - reading book, newspaper, etc | [3] |
| 114190 | sending text messages (SMS) - lying down | 1.2^a | lying awake measured in 5 child studies, n = 130 | [21-25] |
| 124170 | sending text messages (SMS) – sitting | 1.5 | sitting playing game on a mobile phone measured in 1 child study, n = 19. | [26] |
| 134180 | sending text messages (SMS) - standing | 1.8 | Ainsworth 09050 - standing talking or talking on the phone | [3] |
| 124090 | sitting - talking | 1.5 | Ainsworth 09055 - sitting talking, or talking on the phone | [3] |
| 121130 | sitting at the movies/cinema/theatre | 1.2^a | sitting watching TV measured in 5 child studies, n = 470 | [8, 33-36] |
| 120140 | sitting quietly | 1.4 | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 100010 | sleeping | 0.9 | Ainsworth 07030 - sleeping | [3] |
| 134120 | standing - talking | 1.8 | Ainsworth 09050 - standing talking or talking on the phone | [3] |
| 130060 | standing quietly - e.g. standing in a line | 1.5 | standing quietly measured in 6 child studies, n = 211 | [19, 21, 22, 25, 27, 32] |

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| 114070 talking on phone - lying down | 1.2^a | lying awake measured in 5 child studies, n = 130 | [21-25] |
| 124100 talking on phone - sitting | 1.5 | Ainsworth 09055 - sitting talking, or talking on the phone | [3] |
| 134170 talking on phone - standing | 1.8 | Ainsworth 09050 - standing talking or talking on the phone | [3] |
| 111030 watching TV - lying quietly | 1.1 | watching TV lying down measured in 1 child study, n = 31 | [24] |
| 121050 watching TV – sitting | 1.2 | sitting watching TV measured in 5 child studies, n = 470 | [8, 33-36] |
| 115080 writing - lying down | 1.2^a | lying awake measured in 5 child studies, n = 130 | [21-25] |
| TRANSPORT | | | |
| 240070 climbing stairs | | | |
| 240071 climbing stairs - light effort | 5.3 | climbing stairs measured in 2 child studies, n = 224 | [8, 35] |
| 240072 climbing stairs - moderate effort | 7.0 | climbing stairs measured in 2 child studies, n = 224 | [8, 35] |
| 240073 climbing stairs - hard effort | 8.8 | climbing stairs measured in 2 child studies, n = 224 | [8, 35] |
| 241090 riding a motorcycle or motor scooter | 2.5 | Ainsworth 16030 - motor scooter, motorcycle | [3] |
| 221120 riding in a bus | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 221130 riding in a plane | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 221110 riding in a train/tram/ferry | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 221000 riding in/driving a car | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 240050 walking | | | |
| 240051 walking - light effort | 2.9^b | regression equation developed by Ridley and Olds: METs = 0.07 age – 1.21 speed (m.s ⁻¹) + 1.65 speed ² (m.s ⁻¹) + 1.72, r = 0.65, SEE = 1.0 MET, n = 1187 Light speed ^c = 0.97 m.s ⁻¹ | [9] |

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| 240052 walking - moderate effort | 3.6^b | As above Moderate speed ^c = 1.25 m.s ⁻¹ | [9] |
| 240053 walking - hard effort | 4.6^b | As above Hard speed ^c = 1.53 m.s ⁻¹ | [9] |
| 240090 walking carrying a load | | | |
| 240091 walking carrying a load - light effort | 3.4 | 0.75 × moderate value | |
| 240092 walking carrying a load - moderate effort | 4.2 | walking carrying an 8.5 kg backpack measured in 1 child study, n = 35 | [32] |
| 240093 walking carrying a load - hard effort | 5.3 | 1.25 × moderate value | |
| 241080 walking using crutches | 4.0 | Ainsworth 17140 - walking using crutches | [3] |
| PLAY/SPORT | | | |
| 341750 aerobics/health hustle | | | |
| 341751 aerobics/health hustle - light effort | 5.0 | Ainsworth 03020 - aerobic, low impact | [3] |
| 341752 aerobics/health hustle - moderate effort | 6.2 | aerobics (step) measured in 1 child study, n = 74 | [35] |
| 341753 aerobics/health hustle - hard effort | 8.5 | Ainsworth 03016 - aerobic, step | [3] |
| 331000 archery | 3.5 | Ainsworth 15010 - archery (non-hunting) | [3] |
| 341660 athletics (track and field): hurdles steeplechase | | | |
| 341661 athletics (track and field): hurdles steeplechase - light effort | 7.5 | 0.75 × moderate value | |
| 341662 athletics (track and field): hurdles steeplechase - moderate effort | 10.0 | Ainsworth 15734 - track and field (steeplechase, hurdles) | [3] |
| 341663 athletics (track and field): hurdles steeplechase - hard effort | 12.5 | 1.25 × moderate value | |
| 341650 athletics (track and field): jumping | | | |
| 341651 athletics (track and field): jumping - light effort | 4.5 | 0.75 × moderate value | |

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| 341652 | athletics (track and field): jumping - moderate effort | 6.0 | Ainsworth 15733 - track and field (high, long, triple jump) | [3] |
| 341653 | athletics (track and field): jumping - hard effort | 7.5 | 1.25 × moderate value | |
| 341670 | athletics (track and field): throwing | | | |
| 341671 | athletics (track and field): throwing - light effort | 3.0 | 0.75 × moderate value | |
| 341672 | athletics (track and field): throwing - moderate effort | 4.0 | Ainsworth 15732 - track and field (shot, discus, hammer throw) | [3] |
| 341673 | athletics (track and field): throwing - hard effort | 5.0 | 1.25 × moderate value | |
| 342010 | badminton | | | |
| 342011 | badminton - light effort | 3.4 | 0.75 × moderate value | |
| 342012 | badminton - moderate effort | 4.5 | Ainsworth 15030 - badminton, general | [3] |
| 342013 | badminton - hard effort | 5.6 | 1.25 × moderate value | |
| 341790 | ballet | | | |
| 341791 | ballet - light effort | 3.0 | 0.75 × moderate value | |
| 341792 | ballet - moderate effort | 4.8 | dancing measured in one child study, n = 36 | [27] |
| 341793 | ballet - hard effort | 7.0 | 1.25 × moderate value | |
| 342020 | baseball | | | |
| 342021 | baseball - light effort | 3.8 | 0.75 × moderate value | |
| 342022 | baseball - moderate effort | 5.0 | Ainsworth 15620 - baseball or softball, general | [3] |
| 342023 | baseball - hard effort | 6.3 | 1.25 × moderate value | |
| 342030 | basketball | | | |
| 342031 | basketball - light effort | 7.2 | shooting hoops measured in 1 child study, n = 74 | [35] |
| 342032 | basketball - moderate effort | 8.2 | basketball game measured in 1 child study, n = 12 | [37] |
| 342033 | basketball - hard effort | 10.1 | basketball – fast dribbling and shooting measured in 1 child study, n = 19. | [26] |

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| 342050 | bobsled toboggan luge | | | | |
| 342051 | bobsled toboggan luge - light effort | 5.3 | 0.75 × moderate value | | |
| 342052 | bobsled toboggan luge - moderate effort | 7.0 | Ainsworth 19180 - sledding, tobogganing, bobsledding, luge | [3] | |
| 342053 | bobsled toboggan luge - hard effort | 8.8 | 1.25 × moderate value | | |
| 342070 | broomball/floorball | | | | |
| 342071 | broomball/floorball - light effort | 5.3 | 0.75 × moderate value | | |
| 342072 | broomball/floorball - moderate effort | 7.0 | Ainsworth 15130 - broomball | [3] | |
| 342073 | broomball/floorball - hard effort | 8.8 | 1.25 × moderate value | | |
| 341080 | calisthenics | | | | |
| 341081 | calisthenics - light effort | 3.5 | Ainsworth 02030 - calisthenics, light effort | [3] | |
| 341082 | calisthenics - moderate effort | 5.8 | mean of light and hard values. | | |
| 341083 | calisthenics - hard effort | 8.0 | Ainsworth 02020 - calisthenics, vigorous effort | [3] | |
| 342850 | chasey/tag/tips/tiggy | | | | |
| 342851 | chasey/tag/tips/tiggy - light effort | 3.8 | 0.75 × moderate value | | |
| 342852 | chasey/tag/tips/tiggy - moderate effort | 5.0 | playground games measured in 1 child study, n = 37 | [27] | |
| 342853 | chasey/tag/tips/tiggy - hard effort | 6.3 | 1.25 × moderate value | | |
| 341840 | climbing trees | 8.0 | movement pattern similar to rock climbing - Ainsworth 17120 | [3] | |
| 342100 | cricket | | | | |
| 342101 | cricket - light effort | 2.6 | 0.75 × moderate value | | |
| 342102 | cricket - moderate effort | 3.5 | cricket measured in 1 child study, n = 35 | [27] | |
| 342103 | cricket - hard effort | 4.4 | 1.25 × moderate value | | |
| 341110 | croquet | 2.5 | Ainsworth 15160 | [3] | |
| 342120 | curling | | | | |

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| 342121 | curling - light effort | 3.0 | 0.75 × moderate value | |
| 342122 | curling - moderate effort | 4.0 | Ainsworth 15170 - curling | [3] |
| 342123 | curling - hard effort | 5.0 | 1.25 × moderate value | |
| 341130 dancing (general) | | | | |
| 341131 | dancing (general) - light effort | 4.1 | 0.75 × moderate value | |
| 341132 | dancing (general) - moderate effort | 5.5 | dancing measured in one child study, n = 36 | [27] |
| 341133 | dancing (general) - hard effort | 6.9 | 1.25 × moderate value | |
| 342910 dodge ball/poison ball/brandy/speed ball | | | | |
| 342911 | dodge ball/poison ball/brandy/speed ball - light effort | 3.8 | 0.75 × moderate value | |
| 342912 | dodge ball/poison ball/brandy/speed ball - moderate effort | 5.0 | playground games measured in 1 child study, n = 37 | [27] |
| 342913 | dodge ball/poison ball/brandy/speed ball - hard effort | 6.3 | 1.25 × moderate value | |
| 342250 | European handball (team) | | | |
| 342251 | European handball (team) - light effort | 6.0 | 0.75 × moderate value | |
| 342252 | European handball (team) - moderate effort | 8.0 | Ainsworth 15330 - handball, team | [3] |
| 342253 | European handball (team) - hard effort | 10.0 | 1.25 × moderate value | |
| 321870 | fishing | 3.0 | Ainsworth 04040 - fishing, general | [3] |
| 342150 football (Australian/American) | | | | |
| 342151 | football (Australian/American) - light effort | 6.6 | 0.75 × moderate value | |
| 342152 | football (Australian/American) - moderate effort | 8.8^a | movement pattern similar to soccer measured in 1 child study, n = 25 | [27] |
| 342153 | football (Australian/American) - hard effort | 11.0 | 1.25 × moderate value | |
| 342190 | frisbee (general) | | | |
| 342191 | frisbee (general) - light effort | 2.0 | 0.75 × moderate value | |

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| 342192 | frisbee (general) - moderate effort | 3.0 | Ainsworth 15240 - frisbee playing, general | [3] |
| 342193 | frisbee (general) - hard effort | 6.0 | 1.25 × moderate value | |
| 342200 | frisbee (ultimate) | | | |
| 342201 | frisbee (ultimate) - light effort | 6.0 | 0.75 × moderate value | |
| 342202 | frisbee (ultimate) - moderate effort | 8.0 | Ainsworth 15250 - frisbee, ultimate | [3] |
| 342203 | frisbee (ultimate) - hard effort | 10.0 | 1.25 × moderate value | |
| 341210 | golf | | | |
| 341211 | golf - light effort | 3.0 | Ainsworth 15270 - golf, miniature, driving ranges | [3] |
| 341212 | golf - moderate effort | 4.3 | Ainsworth 15285 - golf, walking and pulling clubs | [3] |
| 341213 | golf - hard effort | 4.5 | Ainsworth 15255 - golf, general | [3] |
| 341220 gymnastics | | | | |
| 341221 | gymnastics - light effort | 3.0 | 0.75 × moderate value | |
| 341222 | gymnastics - moderate effort | 4.0 | gymnastics measured in 1 child study, n = 78. | [27] |
| 341223 | gymnastics - hard effort | 5.0 | 1.25 × moderate value | |
| 341230 | hacky sack | | | |
| 341231 | hacky sack - light effort | 3.0 | 0.75 × moderate value | |
| 341232 | hacky sack - moderate effort | 4.0 | Ainsworth 15310 - hacky sack | [3] |
| 341233 | hacky sack - hard effort | 5.0 | 1.25 × moderate value | |
| 342240 hand tennis (four-square) | | | | |
| 342241 | hand tennis (four-square) - light effort | 3.8 | 0.75 × moderate value | |
| 342242 | hand tennis (four-square) - moderate effort | 5.0 | playground games measured in 1 child study, n = 37 | [27] |
| 342243 | hand tennis (four-square) - hard effort | 6.3 | 1.25 × moderate value | |
| 342830 | hide and seek | 4.0 | Ainsworth 05175 - walk/run - playing with children, moderate | [3] |
| 342260 | hockey (field) | | | |
| 342261 | hockey (field) - light effort | 6.0 | 0.75 × moderate value | |

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| 342262 | hockey (field) - moderate effort | 8.0 | Ainsworth 15350 – field hockey | [3] |
| 342263 | hockey (field) - hard effort | 10.0 | 1.25 × moderate value | |
| 342270 | hockey (ice) | | | |
| 342271 | hockey (ice) - light effort | 6.0 | 0.75 × moderate value | |
| 342272 | hockey (ice) - moderate effort | 8.0 | Ainsworth 15360 - ice hockey | [3] |
| 342273 | hockey (ice) - hard effort | 10.0 | 1.25 × moderate value | |
| 341280 hopscotch | | | | |
| 341281 | hopscotch - light effort | 4.4 | 0.75 × moderate value | |
| 341282 | hopscotch - moderate effort | 5.9 | hopscotch measured in two child studies, n = 51 | [14, 15] |
| 341283 | hopscotch - hard effort | 7.4 | 1.25 × moderate value | |
| 321290 | horseback riding | | | |
| 321291 | horseback riding - light effort | 2.5 | Ainsworth 15400 - horseback riding, walking | [3] |
| 321292 | horseback riding - moderate effort | 4.0 | Ainsworth 15370 - horseback riding, general | [3] |
| 321293 | horseback riding - hard effort | 6.5 | Ainsworth 15390 - horseback riding, trotting | [3] |
| 341300 | ice skating | | | |
| 341301 | ice skating - light effort | 5.5 | Ainsworth 19020 - ice skating, 4 m.s ⁻¹ | [3] |
| 341302 | ice skating - moderate effort | 7.0 | Ainsworth 19030 - ice skating, general | [3] |
| 341303 | ice skating - hard effort | 9.0 | Ainsworth 19040 - ice skating, > 4 m.s ⁻¹ | [3] |
| 331330 | juggling | 4.0 | Ainsworth 15440 - juggling | [3] |
| 341320 | karate/martial arts/judo/kick boxing | | | |
| 341321 | karate/martial arts/judo/kick boxing - light effort | 7.5 | 0.75 × moderate value | |
| 341322 | karate/martial arts/judo /kick boxing - moderate effort | 10.0 | Ainsworth 15430 - judo, jujitsu, karate, kick boxing, tae kwan do | [3] |
| 341323 | karate/martial arts/judo/kick boxing - hard effort | 12.5 | 1.25 × moderate value | |

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| 341340 | kayaking | | | |
| 341341 | kayaking - light effort | 3.8 | 0.75 × moderate value | |
| 341342 | kayaking - moderate effort | 5.0 | Ainsworth 18100 - kayaking | [3] |
| 341343 | kayaking - hard effort | 6.3 | 1.25 × moderate value | |
| 342350 | kickball | | | |
| 342351 | kickball - light effort | 5.3 | 0.75 × moderate value | |
| 342352 | kickball - moderate effort | 7.0 | Ainsworth 15450 - kickball | [3] |
| 342353 | kickball - hard effort | 8.8 | 1.25 × moderate value | |
| 342360 lacrosse | | | | |
| 342361 | lacrosse - light effort | 4.8 | 0.75 × moderate value | |
| 342362 | lacrosse - moderate effort | 6.4 | lacrosse measured in 1 child study, n = 37 | [27] |
| 342363 | lacrosse - hard effort | 8.0 | 1.25 × moderate value | |
| 342370 | lawn bowls | 3.0 | Ainsworth 15570 - lawn bowling | [3] |
| 331960 lifting weights | | | | |
| 331961 | lifting weights - light effort | 2.1 | 0.75 × moderate value | |
| 331962 | lifting weights - moderate effort | 2.8 | weight lifting (bench press and leg press) measured in 1 child study, n = 510 | [8] |
| 331963 | lifting weights - hard effort | 3.5 | 1.25 x moderate value | |
| 341970 | mini golf or putt putt | 3.0 | Ainsworth 15270 - golf, miniature, driving range | [3] |
| 341980 | unstructured indoor play - walk/run | 4.0 | Ainsworth 05175 - walk/run, playing with child(ren), moderate only active periods | [3] |
| 321960 | unstructured indoor play - sitting | 2.3 | Ainsworth 05170 - sitting, playing with child(ren): light, only active periods | [3] |
| 341990 unstructured outdoor play | | | | |
| 341991 | unstructured outdoor play - light effort | 3.8 | 0.75 x moderate value | |
| 341992 | unstructured outdoor play - moderate effort | 5.0 | playground games measured in 1 child study, n = 37 | [27] |

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| 341993 unstructured outdoor play - hard effort | 6.3 | 1.25 × moderate value | |
| 342380 netball | | | |
| 342381 netball - light effort | 7.2^a | movement pattern similar to shooting hoops measured in 1 child study, n = 74 | [35] |
| 342382 netball - moderate effort | 8.2^a | movement pattern similar to basketball measured in 1 child study, n = 12 | [37] |
| 342383 netball - hard effort | 10.1^a | movement pattern similar to basketball – fast dribbling and shooting, measured in 1 child study, n = 19. | [26] |
| 341390 orienteering | | | |
| 341391 orienteering - light effort | 7.0 | 0.75 × moderate value | |
| 341392 orienteering - moderate effort | 9.0 | Ainsworth 15480 - orienteering | [3] |
| 341393 orienteering - hard effort | 11.0 | 1.25 × moderate value | |
| 342400 paddleball | | | |
| 342401 paddleball - light effort | 4.5 | 0.75 × moderate value | |
| 342402 paddleball - moderate effort | 6.0 | Ainsworth 15500 - paddleball | [3] |
| 342403 paddleball - hard effort | 7.5 | 1.25 × moderate value | |
| 341900 playground equipment (e.g. monkey bars) | | | |
| 341901 playground equipment (e.g. monkey bars) - light effort | 3.8 | 0.75 × moderate value | |
| 341902 playground equipment (e.g. monkey bars) - moderate effort | 5.0 | playground games measured in 1 child study, n = 37 | [27] |
| 341903 playground equipment (e.g. monkey bars) - hard effort | 6.3 | 1.25 × moderate value | |
| 342770 playing catch | | | |
| 342771 playing catch - light effort | 2.0 | 0.75 × moderate value | |
| 342772 playing catch - moderate effort | 2.6 | catching measured in 2 child studies, n = 51 | [14, 15] |
| 342773 playing catch - hard effort | 3.3 | 1.25 × moderate value | |

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| 321880 playing in sandpit | 1.6^a | movement pattern similar to sitting, playing puzzles measured in 3 child study, n = 312 | [8, 23, 42] |
| 321950 playing with animals - sitting | 2.5 | Ainsworth 05190 - sitting, playing with animals | [3] |
| 341290 playing with animals - walk/run | | | |
| 341291 playing with animals - walk/run - light effort | 2.8 | Ainsworth 05192 - walk/run, playing with animals, light | [3] |
| 341292 playing with animals - walk/run - moderate effort | 4.0 | Ainsworth 05193 - walk/run, playing with animals, moderate | [3] |
| 341293 playing with animals - walk/run - hard effort | 5.0 | Ainsworth 05194 - walk/run, playing with animals, vigorous | [3] |
| 321920 playing with toys/lego/dolls/action figures | 1.6^a | movement pattern similar to sitting, playing puzzles measured in 3 child study, n = 312 | [8, 23, 42] |
| 342760 playing with young children | | | |
| 342761 playing with young children - light effort | 2.8 | Ainsworth 05171 - standing, playing with children, light | [3] |
| 342762 playing with young children - moderate effort | 4.0 | Ainsworth 05175 - walk/run - playing with children, moderate | [3] |
| 342763 playing with young children - hard effort | 5.0 | Ainsworth 05180 - walk/run, playing with children, vigorous | [3] |
| 341820 pogo stick | | | |
| 341821 pogo stick - light effort | 6.5 | 0.75 × moderate value | |
| 341822 pogo stick - moderate effort | 8.7 | movement pattern similar to trampoline measured in 1 child study, n = 19. | [26] |
| 341823 pogo stick - hard effort | 10.9 | 1.25 × moderate value | |
| 332040 pool/billiards/snooker | 2.5 | Ainsworth 15080 - billiards | [3] |
| 331420 quoits | 3.0 | Ainsworth 15410 - horse pitching, quoits | [3] |
| 341890 race walking | | | |
| 341891 race walking - light effort | 4.9 | 0.75 × moderate value | |

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| 341892 | race walking - moderate effort | 6.5 | Ainsworth 17110 - race walking | [3] |
| 341893 | race walking - hard effort | 8.1 | 1.25 × moderate value | |
| 342430 | racquetball | | | |
| 342431 | racquetball - light effort | 5.3 | 0.75 × moderate value | |
| 342432 | racquetball - moderate effort | 7.0 | Ainsworth 15530 - racquetball, general | [3] |
| 342433 | racquetball - hard effort | 8.8 | 1.25 × moderate value | |
| 342440 | red rover/octopus tag/British bulldog/bullrush | | | |
| 342441 | red rover/octopus tag/British bulldog/bullrush - light effort | 3.8 | 0.75 × moderate value | |
| 342442 | red rover/octopus tag/British bulldog/bullrush - moderate effort | 5.0 | playground games measured in 1 child study, n = 37 | [27] |
| 342443 | red rover/octopus tag/British bulldog/bullrush - hard effort | 6.3 | 1.25 × moderate value | |
| 341240 | riding a bicycle/bike | | | |
| 341241 | riding a bicycle/bike - light effort | 4.7 | 0.75 × moderate value | |
| 341242 | riding a bicycle/bike - moderate effort | 6.2 | riding a bicycle outdoors at 5.3 m.s ⁻¹ measured in 1 child study, n = 74. | [35] |
| 341243 | riding a bicycle/bike - hard effort | 7.8 | 1.25 × moderate value | |
| 341250 | riding a scooter | | | |
| 341251 | riding a scooter - light effort | 4.9 | 0.75 × moderate value | |
| 341252 | riding a scooter - moderate effort | 6.5 | riding a scooter measured in 1 child study, n = 30 | [39] |
| 341253 | riding a scooter - hard effort | 8.1 | 1.25 × moderate value | |
| 341270 | riding a skateboard | | | |
| 341271 | riding a skateboard - light effort | 3.8 | 0.75 × moderate value | |
| 341272 | riding a skateboard - moderate effort | 5.0 | Ainsworth 15580 - skateboarding | [3] |
| 341273 | riding a skateboard - hard effort | 6.3 | 1.25 × moderate value | |
| 341450 | rockclimbing | | | |
| 341451 | rockclimbing - light effort | 6.0 | 0.75 × moderate value | |

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| 341452 | rockclimbing - moderate effort | 8.0 | Ainsworth 15540 - rock climbing, rapelling | [3] |
| 341453 | rockclimbing - hard effort | 11.0 | Ainsworth 15535 - rock climbing, ascending rock | [3] |
| 341310 rollerblading (in-line skating) | | | | |
| 341311 | rollerblading (in-line skating) - light effort | 4.9 | 0.75 × moderate value | |
| 341312 | rollerblading (in-line skating) - moderate effort | 6.5 | rollerblading measured in 1 child study, n = 26 | [39] |
| 341313 | rollerblading (in-line skating) - hard effort | 8.1 | 1.25 × moderate value | |
| 341460 rollerskating | | | | |
| 341461 | rollerskating - light effort | 4.9^a | 0.75 × moderate value | |
| 341462 | rollerskating - moderate effort | 6.5^a | movement pattern similar to rollerblading measured in 1 child study, n = 26 | [39] |
| 341463 | rollerskating - hard effort | 8.1^a | 1.25 × moderate value | |
| 341090 | rowing/canoeing | | | |
| 341091 | rowing/canoeing - light effort | 3.0 | Ainsworth (canoeing, rowing 2.0-3.9 mph, light effort) | [3] |
| 341092 | rowing/canoeing - moderate effort | 7.0 | Ainsworth 18050 (canoeing, rowing 4.0-5.9 mph, mod effort) | [3] |
| 341093 | rowing/canoeing - hard effort | 12.0 | Ainsworth 18060 (canoeing, rowing >6 mph, vig effort) | [3] |
| 342160 rugby league | | | | |
| 342161 | rugby league - light effort | 6.6 | 0.75 × moderate value | |
| 342162 | rugby league - moderate effort | 8.8^a | movement pattern similar to soccer measured in 1 child study, n = 25 | [27] |
| 342163 | rugby league - hard effort | 11.0 | 1.25 × moderate value | |
| 342170 rugby union | | | | |
| 342171 | rugby union - light effort | 6.6 | 0.75 × moderate value | |
| 342172 | rugby union - moderate effort | 8.8^a | movement pattern similar to soccer measured in 1 child study, n = 25 | [27] |

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|---------------|--|------------------------|--|-----|
| 342173 | rugby union - hard effort | 11.0 | 1.25 × moderate value | |
| 341480 | running /jogging | | | |
| 341481 | running/jogging - light effort | 7.7^b | regression equation developed based on 31 child studies: METs = 0.27 age + 1.91 speed (m.s ⁻¹) + 0.46, r = 0.61, SEE = 1.4 METs, n = 1974. Light speed ^d = 2.08 m.s ⁻¹ | [9] |
| 341482 | running/jogging - moderate effort | 8.5^b | As above Moderate speed ^d = 2.50 m.s ⁻¹ | [9] |
| 341483 | running/jogging - hard effort | 9.3^b | As above Hard speed ^d = 2.92 m.s ⁻¹ | [9] |
| 331490 | sailboard/windsurfing | | | |
| 331491 | sailboard/windsurfing - light effort | 2.0 | 0.75 × moderate value | |
| 331492 | sailboard/windsurfing - moderate effort | 3.0 | Ainsworth 18120 - windsurfing | [3] |
| 331493 | sailboard/windsurfing - hard effort | 5.0 | 1.25 × moderate value | |
| 321940 | sailing/boating | | | |
| 321941 | sailing/boating - light effort | 2.3 | 0.75 × moderate value | |
| 321942 | sailing/boating - moderate effort | 3.0 | Ainsworth 18120 - sailing, boat sailing, wind surfing | [3] |
| 321943 | sailing/boating - hard effort | 3.8 | 1.25 × moderate value | |
| 341500 | shuffleboard | | | |
| 341501 | shuffleboard - light effort | 2.3 | 0.75 × moderate value | |
| 341502 | shuffleboard - moderate effort | 3.0 | Ainsworth 15570 - shuffleboard, lawn bowling | [3] |
| 341503 | shuffleboard - hard effort | 4.0 | 1.25 × moderate value | |
| 341520 | skiing (cross-country) | | | |
| 341521 | skiing (cross-country) - light effort | 7.0 | Ainsworth 19080 - cross country skiing, slow or light effort | [3] |
| 341522 | skiing (cross-country) - moderate effort | 8.0 | Ainsworth 19090 - cross country skiing, moderate speed and effort | [3] |
| 341523 | skiing (cross-country) - hard effort | 9.0 | Ainsworth 19100 - cross country skiing, fast effort | [3] |

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|-------------------------------------|--|-------------|---|------|--|
| 341530 | skiing (downhill) | | | | |
| 341531 | skiing (downhill) - light effort | 5.0 | Ainsworth 19150 - skiing, downhill, light effort | [3] | |
| 341532 | skiing (downhill) - moderate effort | 6.0 | Ainsworth 19160 - skiing, downhill, moderate effort | [3] | |
| 341533 | skiing (downhill) - hard effort | 8.0 | Ainsworth 19170 - skiing, downhill, vigorous effort | [3] | |
| 341540 | skindiving (SCUBA) | | | | |
| 341541 | skindiving (SCUBA) - light effort | 7.0 | Ainsworth 18200 - skindiving, scuba diving, general | [3] | |
| 341542 | skindiving (SCUBA) - moderate effort | 12.5 | Ainsworth 18190 - skindiving, moderate | [3] | |
| 341543 | skindiving (SCUBA) - hard effort | 16.0 | Ainsworth 18180 - skindiving - fast | [3] | |
| 341470 skipping/jump rope | | | | | |
| 341471 | skipping/jump rope - light effort | 6.2 | 0.75 × moderate value | | |
| 341472 | skipping/jump rope - moderate effort | 8.3 | skipping measured in 1 child study, n = 262 | [8] | |
| 341473 | skipping/jump rope - hard effort | 10.3 | 1.25 × moderate value | | |
| 341550 | snorkelling | | | | |
| 341551 | snorkelling - light effort | 3.8 | 0.75 × moderate value | | |
| 341552 | snorkelling - moderate effort | 5.0 | Ainsworth 18210 - snorkeling | [3] | |
| 341553 | snorkelling - hard effort | 6.3 | 1.25 × moderate value | | |
| 342180 soccer (field/indoor) | | | | | |
| 342181 | soccer (field/indoor) - light effort | 6.6 | 0.75 × moderate value | | |
| 342182 | soccer (field/indoor) - moderate effort | 8.8 | soccer measured in 1 child study, n = 25 | [27] | |
| 342183 | soccer (field/indoor) - hard effort | 11.0 | 1.25 × moderate value | | |
| 342560 | softball or t-ball | | | | |
| 342561 | softball or t-ball - light effort | 3.8 | 0.75 × moderate value | | |
| 342562 | softball or t-ball - moderate effort | 5.0 | Ainsworth 15620 - baseball or softball, general | [3] | |
| 342563 | softball or t-ball - hard effort | 6.3 | 1.25 × moderate value | | |
| 341570 | speed skating (competitive) | | | | |

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|---------------|---|-------------|---|------|
| 341571 | speed skating (competitive) - light effort | 7.0 | Ainsworth 19030 - ice skating, general | [3] |
| 341572 | speed skating (competitive) - moderate effort | 9.0 | Ainsworth 19040 - ice skating, > 4 m.s ⁻¹ | [3] |
| 341573 | speed skating (competitive) - hard effort | 15.0 | Ainsworth 19050 - speed skating, competitive | [3] |
| 342580 | squash | | | |
| 342581 | squash - light effort | 5.3 | 0.75 × moderate value | |
| 342582 | squash - moderate effort | 7.0 | movement pattern similar to racquetball - Ainsworth 15530 | [3] |
| 342583 | squash - hard effort | 8.8 | 0.75 × moderate value | |
| 331590 | stretching exercises | 2.5 | stretching exercises measured in 1 child study, n = 264 | [8] |
| 341600 | surfing (body or board) | | | |
| 341601 | surfing (body or board) - light effort | 3.8 | 0.75 × moderate value | |
| 641602 | surfing (body or board) - moderate effort | 5.0 | Ainsworth 18220 - surfing, body or board | [3] |
| 341603 | surfing (body or board) - hard effort | 6.3 | 1.25 × moderate value | |
| 341930 | swimming (playing in pool) | | | |
| 341931 | swimming (playing in pool) - light effort | 3.0 | Ainsworth 18365 - water volleyball | [3] |
| 341932 | swimming (playing in pool) - moderate effort | 4.0 | Ainsworth 18350 - swimming, treading water moderate effort | [3] |
| 341933 | swimming (playing in pool) - hard effort | 5.0 | 1.25 × moderate value | |
| 341610 | swimming laps | | | |
| 341611 | swimming laps - light effort | 8.4 | swimming at 0.9 m.s ⁻¹ measured in 1 child study, n = 11 | [40] |
| 341612 | swimming laps - moderate effort | 9.9 | swimming at 1.0 m.s ⁻¹ measured in 1 child study, n = 21 | [40] |
| 341613 | swimming laps - hard effort | 11.6 | swimming at 1.1 m.s ⁻¹ measured in 1 child study, n = 11 | [40] |
| 342620 | table tennis | | | |

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|---------------|---|-------------------------|--|------|
| 342621 | table tennis - light effort | 3.0 | 0.75 × moderate value | |
| 342622 | table tennis - moderate effort | 4.0 | Ainsworth 15660 - table tennis, ping pong | [3] |
| 342623 | table tennis - hard effort | 5.0 | 1.25 × moderate value | |
| 331630 | tai chi/yoga | 2.5^a | stretching exercises measured in 1 child study, n = 264 | [8] |
| 341800 | tap dancing | | | |
| 341801 | tap dancing - light effort | 3.0 | 0.75 × moderate value | |
| 341802 | tap dancing - moderate effort | 4.8 | dancing measured in one child study, n = 36 | [27] |
| 341803 | tap dancing - hard effort | 7.0 | 1.25 × moderate value | |
| 342640 | tennis (court) | | | |
| 342641 | tennis (court) - light effort | 5.3 | 0.75 × moderate value | |
| 342642 | tennis (court) - moderate effort | 7.0 | Ainsworth 15675 - tennis, general | [3] |
| 342643 | tennis (court) - hard effort | 8.8 | 1.25 × moderate value | |
| 342060 | tenpin bowling | 4.9 | bowling measured in 1 child study, n = 12 | [37] |
| 331990 | totem tennis | | | |
| 331991 | totem tennis - light effort | 3.8 | 0.75 × moderate value | |
| 331992 | totem tennis - moderate effort | 5.0 | Ainsworth 15135 - children's games, tetherball | [3] |
| 331993 | totem tennis - hard effort | 6.3 | 1.25 × moderate value | |
| 342810 | touch football | | | |
| 342811 | touch football - light effort | 6.6 | 0.75 × moderate value | |
| 342812 | touch football - moderate effort | 8.8^a | movement pattern similar to soccer measured in 1 child study, n = 25 | [27] |
| 342813 | touch football - hard effort | 11.0^a | 1.25 × moderate value | |
| 341680 | trampoline | | | |
| 341681 | trampoline - light effort | 6.5 | 0.75 × moderate value | |
| 341682 | trampoline - moderate effort | 8.7 | trampoline measured in 1 child study, n = 19. | [26] |
| 341683 | trampoline - hard effort | 10.9 | 1.25 × moderate value | |
| 342700 | volleyball (beach) | | | |

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| 342701 | volleyball (beach) - light effort | 6.0 | 0.75 × moderate value | |
| 342702 | volleyball (beach) - moderate effort | 8.0 | Ainsworth 15725 - beach volleyball | [3] |
| 342703 | volleyball (beach) - hard effort | 10.0 | 1.25 × moderate value | |
| 342690 | volleyball (court) | | | |
| 342691 | volleyball (court) - light effort | 3.0 | 0.75 × moderate value | |
| 342692 | volleyball (court) - moderate effort | 4.0 | Ainsworth 15710 - volleyball | [3] |
| 342693 | volleyball (court) - hard effort | 5.0 | 1.25 × moderate value | |
| 342710 | wallyball/modified volleyball | | | |
| 342711 | wallyball/modified volleyball - light effort | 5.3 | 0.75 × moderate value | |
| 342712 | wallyball/modified volleyball - moderate effort | 7.0 | Ainsworth 15731 - wallyball, general | [3] |
| 342713 | wallyball/modified volleyball - hard effort | 8.8 | 1.25 × moderate value | |
| 331730 | water skiing | | | |
| 331731 | water skiing - light effort | 4.5 | 0.75 × moderate value | |
| 331732 | water skiing - moderate effort | 6.0 | Ainsworth 18150 - skiing, water | [3] |
| 331733 | water skiing - hard effort | 7.5 | 1.25 × moderate value | |
| 341740 | whitewater rafting | | | |
| 341741 | whitewater rafting - light effort | 3.8 | 0.75 × moderate value | |
| 341742 | whitewater rafting - moderate effort | 5.0 | Ainsworth 18370 - whitewater rafting, kayaking, canoeing | [3] |
| 341743 | whitewater rafting - hard effort | 6.3 | 1.25 × moderate value | |
| 342860 | wrestling with mates | 4.0 | Ainsworth 05175 - walk/run, playing with child(ren), moderate only active periods | [3] |
| SCHOOL WORK | | | | |
| 420000 | arts and crafts - sitting | 1.6 | arts and crafts, sitting measured in 2 child studies, n = 101 | [27, 36] |
| 430000 | arts and craft - standing | 1.9 | drawing, standing measured in 1 child study, n = 19 | [38] |

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| 440160 carrying sports equipment | 4.2^a | walking carrying an 8.5 kg backpack measured in 1 child study, n = 35 | [32] |
| 420050 computer work (e.g. typing/internet) | 1.8 | Ainsworth 09040 - sitting, typing | [3] |
| 420090 crayoning | 1.4 | crayoning measured in 2 child studies, n = 51 | [14, 15] |
| 430070 drama class | 2.3 | structure of drama class assumed to be 0.5 schoolwork (e.g. sitting, listening) and 0.5 acting (theatre actor) | [3] |
| 420010 drawing - sitting | 1.4^a | movement pattern similar to crayoning measured in 2 child studies, n = 51 | [14, 15] |
| 430100 drawing - standing | 1.9 | drawing, standing measured in 1 child study, n = 19 | [38] |
| 430080 giving a talk/presentation | 1.6^a | movement pattern similar to standing, singing measured in 1 child study, n = 17 | [20] |
| 420130 morning organisation/books and pens out | 1.4 | school work, sitting measured in 5 studies, n = 442 | [8, 23, 27, 29, 36] |
| 440170 packing up/chairs up - end of school | 2.5 | movement pattern similar to Ainsworth 05040 – cleaning, light (dusting, straightening up, changing linen, carrying out trash) | [3] |
| 430140 packing/unpacking bag | 2.5 | Ainsworth 05055 - home activities, putting away groceries | [3] |
| 420020 reading - sitting | 1.3 ^a | Ainsworth 09030 - sitting - reading book, newspaper, etc | [3] |
| 430020 reading - standing | 1.8 | Ainsworth 09070 - standing reading | [3] |
| 420120 roll call/class organisation | 1.4 | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 430150 school crossing monitor | 2.0 | Ainsworth 09071 - standing, miscellaneous | [3] |

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| 420180 | science experiments – sitting | 1.5 | Ainsworth 11580 – sitting, chemistry lab work | [3] |
| 430190 | science experiments – standing | 2.5 | Ainsworth 11430 – machine tooling | [3] |
| 420110 | sitting quietly (e.g. assembly/listening to teacher) | 1.4 | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 420030 | studying/homework | 1.4 | school work, sitting measured in 5 studies, n = 442 | [8, 23, 27, 29, 36] |
| 420040 | taking notes/class discussion | 1.4 | school work, sitting measured in 5 studies, n = 442 | [8, 23, 27, 29, 36] |
| 430090 | technical studies - standing light effort (e.g. electronics/machining etc) | 2.5 | Ainsworth 11430 – machine tooling | [3] |
| 430110 | technical studies - standing moderate effort (e.g. carpentry/welding) | 3.0 | Ainsworth 06040 – carpentry, general | [3] |
| 420060 | writing - sitting | 1.4 | school work, sitting measured in 5 studies, n = 442 | [8, 23, 27, 29, 36] |
| SELF CARE | | | | |
| 531000 | brushing or combing hair (standing) | 2.5 | Ainsworth 13045 - hairstyling | [3] |
| 531010 | brushing teeth | 2.0 | Ainsworth 13040 - grooming, brushing teeth | [3] |
| 533020 | dressing & undressing | 2.7 | dressing and undressing measured in 2 child studies, n = 93 | [27, 38] |
| 522130 | drinking - sitting | 1.5 | movement pattern similar to Ainsworth 13030 - eating, sitting | [3] |
| 532140 | drinking while standing | 2.0 | movement pattern similar to Ainsworth 13035 - eating, standing | [3] |
| 522030 | eating - sitting | 1.5 | Ainsworth 13030 - eating, sitting | [3] |
| 532040 | eating while standing | 2.0 | Ainsworth 13035 - eating, standing | [3] |
| 553050 | getting ready for bed | 2.7 | movement pattern is dressing and undressing measured in 2 child studies, n = 93 | [27, 38] |

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| 521060 having hair done by someone else | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 534120 putting on makeup/sunscreen/contact lenses/grooming etc | 2.0 | Ainsworth 13040 - grooming, putting on make-up | [3] |
| 531070 showering & towelling off | 2.0 | Ainsworth 13050 - showering, towelling off | [3] |
| 521080 sitting in bath | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 521090 sitting on toilet | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 531100 taking medicine | 1.5 | Ainsworth 13030 - eating, sitting | [3] |
| 534110 washing hands/face | 2.0 | Ainsworth 13040 - grooming, washing | [3] |
| CHORES | | | |
| 632000 bathing dog | 2.5 | caring for animals measured in 1 child study, n = 17 | [27] |
| 642010 carrying small children | 3.0 | Ainsworth 05181 - carrying small children | [3] |
| 641410 carrying very heavy items (e.g. moving furniture) | 6.0 | Ainsworth 05120 – carrying very heavy furniture | [3] |
| 622020 child care (e.g. dressing) | 3.0 | Ainsworth 05186 - child care standing, dressing | [3] |
| 622030 child care (e.g. feeding) | 2.5 | Ainsworth 05185 - child care sitting/kneeling, feeding | [3] |
| 633400 chopping wood | 6.0 | Ainsworth 08020 – chopping wood | [3] |
| 630040 cooking – standing | 2.0 | Ainsworth 05050- cooking or food preparation | [3] |
| 632050 doing the laundry | 2.6^a | hanging out washing measured in 1 child study, n = 14 | [39] |
| 641060 dusting | 4.2 | dusting measured in 1 child study, n = 24 | [23] |
| 642070 feeding pets or farm animals | 2.5 | caring for animals measured in 1 child study, n = 17 | [27] |

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| 642360 | fixing things up (e.g. bike/toys/mechanical work on car etc) | 2.5 | Ainsworth 05025, multiple household tasks all at once, light effort | [3] |
| 643330 | gardening | 3.7 | gardening measured in 1 child study, n = 63 | [27] |
| 642080 | hanging out washing | 2.6 | hanging out washing measured in 1 child study, n = 14 | [39] |
| 632090 | ironing | 2.3 | Ainsworth 05070 - ironing | [3] |
| 622100 | knitting or sewing | 1.5 | Ainsworth 05080 - sitting, knitting, sewing | [3] |
| 630370 | making recess or lunch | 2.0 | Ainsworth 05050 - cooking or food preparation | [3] |
| 631110 | making the bed | 3.4 | making bed measured in 2 child studies, n = 78 | [27, 39] |
| 641120 | mopping | 3.6^a | sweeping measured in 4 child studies, n = 378 | [8, 23, 35, 37] |
| 643290 | mowing lawn | 5.5 | Ainsworth 08120 - mowing lawn, walk, power mower | [3] |
| 633340 | picking flowers fruit or vegetables | 3.0 | Ainsworth 08246 - picking fruit/vegetables | [3] |
| 623320 | pulling up weeds | 3.7 | gardening measured in 1 child study, n = 63 | [27] |
| 641130 | putting away clothes | 2.3 | Ainsworth 05095 - putting away clothes, implied walking | [3] |
| 642170 | putting away or carrying groceries | 2.5 | Ainsworth 05055 - putting away groceries | [3] |
| 643310 | raking leaves | 4.3 | Ainsworth 08160 - raking lawn | [3] |
| 641180 | scrubbing floors in bathroom or bathtub | 3.8 | Ainsworth 05130 - scrubbing floors | [3] |
| 640190 | serving food | 2.6 | setting table measured in 1 child study, n = 20 | [39] |
| 640350 | setting the table | 2.6 | setting table measured in 1 child study, n = 20 | [39] |
| 642200 | shopping | 2.3 | Ainsworth 05060 - food shopping | [3] |
| 633390 | shoveling/digging | 4.3 | shoveling measured in 1 child study, n = 285 | [8] |

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| 641210 sweeping floor | 3.6 | sweeping measured in 4 child studies, n = 378 | [8, 23, 35, 37] |
| 643220 sweeping outside | 3.6 | sweeping measured in 4 child studies, n = 378 | [8, 23, 35, 37] |
| 641370 taking out the rubbish/garbage bin | 2.5 | Ainsworth 05030 - cleaning, light, carrying out trash | [3] |
| 641230 tidying/cleaning room | 3.4 | making bed and cleaning room measured in 2 child studies, n = 78 | [27, 39] |
| 631240 unpacking boxes | 3.5 | Ainsworth 05146 - standing - unpacking, packing boxes | [3] |
| 641250 vacuuming | 4.2 | vacuuming measured in 3 child studies, n = 299 | [8, 23, 29] |
| 642260 washing car or windows | 3.0 | Ainsworth 05020 - cleaning, heavy, washing car or windows | [3] |
| 630270 washing or clearing dishes | 1.9 | washing dishes measured in 2 child studies, n = 32 | [29, 39] |
| 643280 watering plants | 2.5 | Ainsworth 05148 - watering plants | [3] |
| 643300 wheelbarrowing | 5.0 | Ainsworth 08010 - loading/unloading or carrying lumber | [3] |
| OTHER | | | |
| 721030 amusement/theme park rides | 1.5 | movement pattern similar to Ainsworth 09115 - watching sporting events | [3] |
| 721000 camping – sitting | 2.5 | Ainsworth 09110 - camping involving standing, walking, sitting | [3] |
| 722190 computer/playstation games | 1.5 | playing video games sitting measured in 4 child studies, n = 426 | [8,23,36,41] |
| 732200 playing active video games (e.g. EyeToy/dance mat/arcade games) | | | |
| 732201 playing active video games (e.g. EyeToy/dance mat/arcade games) - light effort | 1.7 | playing video centre games measured in 2 child studies, n = 303 | [8, 33] |

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|---------------|--|------------------------|--|------|
| 732202 | playing active video games (e.g. EyeToy/dance mat/arcade games) - moderate effort | 3.4 | playing moderate intensity video centre games (e.g. air hockey) measured in 1 child study, n = 10 | [41] |
| 732203 | playing active video games (e.g. EyeToy/dance mat/arcade games) - hard effort | 6.4 | playing high intensity video games (e.g. simulated horse racing) measured in 1 child study, n = 10 | [41] |
| 731210 | darts | 2.5 | Ainsworth 15180 - darts, wall or lawn | [3] |
| 721010 | family get-togethers (eat talk sit relax) | 1.5 | Ainsworth 09000 - retreat/family reunion activities involving sitting, relaxing, talking, eating | [3] |
| 723020 | part time work - child care sitting (e.g. feeding/bathing) | 2.5 | Ainsworth 05185 – child care, general | [3] |
| 733030 | part time work - child care standing (e.g. carrying/dressing/playing) | 3.0 | Ainsworth 05186 – child care | [3] |
| 743020 | part time work - door to door sales/delivery - paper rounds etc (long periods of walking) | 2.9^a | based on walking – light (see code 240051) | |
| 743030 | part time work - door to door sales/delivery - paper rounds etc (riding bike) | 4.7^a | based on riding a bicycle – light (see code 341241) | |
| 733010 | part time work - serving standing (e.g. checkout/fast food) | 2.3 | Ainsworth 11600 – standing light (bartending, store clerk, etc) | [3] |
| 723010 | part time work - sitting office work | 1.5 | Ainsworth 11580 – sitting, light office work | [3] |
| 733020 | part time work - stacking shelves | 3.0 | Ainsworth 11610 – standing; light/moderate (stocking) | [3] |
| 743010 | part time work - waitressing etc (short periods of walking) | 2.0 | Ainsworth 11791 – walking on job, very slow | [3] |
| 741260 | partying (mostly dancing) | 3.2^a | based on 60% light dancing (4.1 METs) & 40% standing talking (1.8 METs). | |
| 721240 | partying (mostly sitting) | 1.5 | Ainsworth 09055 - sitting talking, or talking on the phone | [3] |

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| 731250 | partying (mostly standing) | 1.8 | Ainsworth 09050 - standing talking or talking on the phone | [3] |
| 740150 | performing on stage at assembly | 3.0 | Ainsworth 11870 - theatre actor | [3] |
| 721220 | playing cards/puzzles/board games | 1.6 | playing with puzzles measured in 3 child studies, n = 312 | [8, 23, 42] |
| 720030 | playing the accordion | 1.8 | Ainsworth 10010 - music playing, accordion | [3] |
| 720040 | playing the cello | 1.7 | cello playing measured in 1 child study, n = 8 | [34] |
| 720050 | playing the drums | 4.0 | Ainsworth 10040 - music playing, drums | [3] |
| 720060 | playing the flute/recorder - sitting | 2.0 | Ainsworth 10050 - music playing, flute (sitting) | [3] |
| 720070 | playing the guitar - sitting | 2.0 | Ainsworth 10120 - music playing, guitar (sitting) | [3] |
| 730080 | playing the guitar – standing | 3.0 | Ainsworth 10125 - music playing, guitar, standing | [3] |
| 720090 | playing the horn | 2.0 | Ainsworth 10060 - music playing, horn | [3] |
| 720100 | playing the piano or organ | 1.7 | playing the piano measured in 1 child study, n = 29 | [27] |
| 730110 | playing the trombone | 3.5 | Ainsworth 10080 - music playing, trombone | [3] |
| 730120 | playing the trumpet | 2.5 | Ainsworth 10090 - trumpet | [3] |
| 720130 | playing the violin | 1.7 | violin playing measured in 2 child studies, n = 17 | [27, 34] |
| 720140 | playing woodwind instruments | 1.6 | Ainsworth 10110 - music playing, woodwind instruments | [3] |
| 721150 | praying | 1.4^a | sitting quietly measured in 9 child studies, n = 288 | [19, 21, 22, 25, 27-31] |
| 720180 | singing – sitting | 1.4 | singing, sitting measured in 1 child study, n = 15 | [38] |
| 730180 | singing – standing | 1.6 | singing, standing measured in 1 child study, n = 17 | [38] |

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| 721160 sitting in church | 1.5 | Ainsworth 20005 - sitting in church, talking or singing | [3] |
| 721230 watching live sporting events | 1.5 | Ainsworth 09115 - watching sporting events | [3] |
| 722170 wrapping/unwrapping presents | 1.5 | Ainsworth 05080 - wrapping presents | [3] |

Note: MET = metabolic equivalent; TV = television; SEE = standard error of estimate; Adult = Adult compendium codes - code descriptions are not consistently presented in full. Some code descriptions have been edited to SI units and only relevant descriptions presented to conserve table space;

^a = in some instances, the child specific energy cost for an activity with an identical movement pattern is used rather than an adult Ainsworth value with a more similar activity description;

^b = walking and running energy costs based on a 12 year old child;

^c = light, moderate and hard effort walking speeds based on speeds commonly reported in the Ridley and Olds energy cost review [9] and the customary slow, normal and fast walking speeds of 6-19 year olds reported by Waters and colleagues [16];

^d = light, moderate and hard effort running speeds based on speeds commonly reported in the Ridley and Olds energy cost review [9].