

**TABLE A: Energy from food**

Information printed on the packet tells you the energy available from different foods.

| Food                            | energy value (kcal /100g) | energy value (kJ /100g) |
|---------------------------------|---------------------------|-------------------------|
| butter                          | 499                       | 2087                    |
| sugar                           | 389                       | 1627                    |
| white bread                     | 266                       | 1112                    |
| margarine                       | 620                       | 2590                    |
| potato, baked                   | 89                        | 372                     |
| MacDonald's hash browns         | 257                       | 1075                    |
| hamburger (no cheese)           | 275                       | 1150                    |
| fried fish                      | 221                       | 924                     |
| oranges, raw                    | 47                        | 196                     |
| lentils, boiled                 | 116                       | 485                     |
| carrots, raw                    | 41                        | 171                     |
| eggs, fried                     | 201                       | 840                     |
| cheese pizza 14"                | 257                       | 1075                    |
| chocolate chip cookies, low fat | 453                       | 1895                    |
| cola carbonated drink           | 37                        | 154                     |
| corn flakes, breakfast cereal   | 360                       | 1506                    |

**TABLE B: Human energy demands**

| Person                         | energy required (kJ/day) |                |
|--------------------------------|--------------------------|----------------|
| <b>child (either sex)</b>      |                          |                |
| 0 – 1 yr                       | 4 185                    |                |
| 2 – 6 yr                       | 6 278                    |                |
| 7 -10 yr                       | 8 370                    |                |
| <b>teenager</b>                | <b>males</b>             | <b>females</b> |
| 11 – 14 yr                     | 11 500                   | 11 500         |
| 15 – 19 yr                     | 14 650                   | 10 460         |
| <b>adult (20 yrs and over)</b> |                          |                |
| lying in bed                   | 7 324                    | 6 278          |
| light work                     | 11 500                   | 9 420          |
| heavy work                     | 14 650                   | 12 550         |
| extremely heavy work           | 20 925                   |                |

**TABLE C: Data for a coal miner**

The miner was 32 years old, 1.75 m tall and had a mass of 67 kg.

| Activity                   | energy needed (kJ /minute) |
|----------------------------|----------------------------|
| resting in bed             | 3.9                        |
| washing, shaving, dressing | 13.8                       |
| walking                    | 20.5                       |
| standing                   | 7.5                        |
| cycling                    | 27.6                       |
| digging coal               | 28.0                       |
| shovelling coal            | 26.9                       |
| walking (in coal mine)     | 28.0                       |