**NEW TOWN SECONDARY SCHOOL**
**DEPARTMENT OF PHYSICAL EDUCATION**

*14 February 2020*

**SECONDARY 2**
**PHYSICAL HEALTH & FITNESS**
**LESSON 2 : HEART RATE & FITNESS**

Name:_____(     )     Class: _____     Date:_____

## (A) Some facts about Heart Rate

Your heart rate, or pulse, is the number of times your heart beats per minute. Normal heart rate varies from person to person. Knowing yours can be an important heart-health gauge.

Your **resting heart rate** is the heart pumping the lowest amount of blood you need when you're not exercising. If you're sitting or lying and calm, relaxed and aren't ill, your heart rate is normally between 60 (beats per minute) and 100 (beats per minute).

But a heart rate lower than 60 doesn't necessarily signal a medical problem. **A lower heart rate is also common for people who get a lot of physical activity or are very athletic.** Active people often have lower heart rates because their heart muscle is in better condition and doesn't need to work as hard to maintain a steady beat.

Moderate physical activity doesn't usually change the resting pulse much. If you're very fit, it could change to 40. A less active person might have a heart rate between 60 and 100. That's because the heart muscle has to work harder to maintain bodily functions, making it higher.

## (B) Match the definitions to the correct Heart Rate

| Resting Heart Rate | | Taken during or straight after exercise |
|---|---|---|

| Working Heart Rate | | Taken every minute after exercise and the quicker your heart rate returns to normal, the fitter you are. |
|---|---|---|

| Recovery Heart Rate | | Taken before exercise |
|---|---|---|

## (C) Gaining a Lifeskill: Reading pulses!

Fill in the blanks on the two main areas to measure your heart rate/pulse:



**R**_____ pulse          **C**_____ pulse

## (D) My Personal Readings:

My Resting heart rate (RHR): _____ beats per minute (bpm)

*14 February 2020*

My estimated Maximum Heart Rate (MHR) = 220 − your current age

= _____bpm

How to calculate your EHR (bpm)

- On stopwatch / HP timer for 10 seconds
- Count the number of bops on wrist or neck
- Multiply number by 6 to get reading for 1 minute = 60 seconds
- You have just calculated your Exercising Heart Rate (EHR) reading!

### (E) Whats the connection?

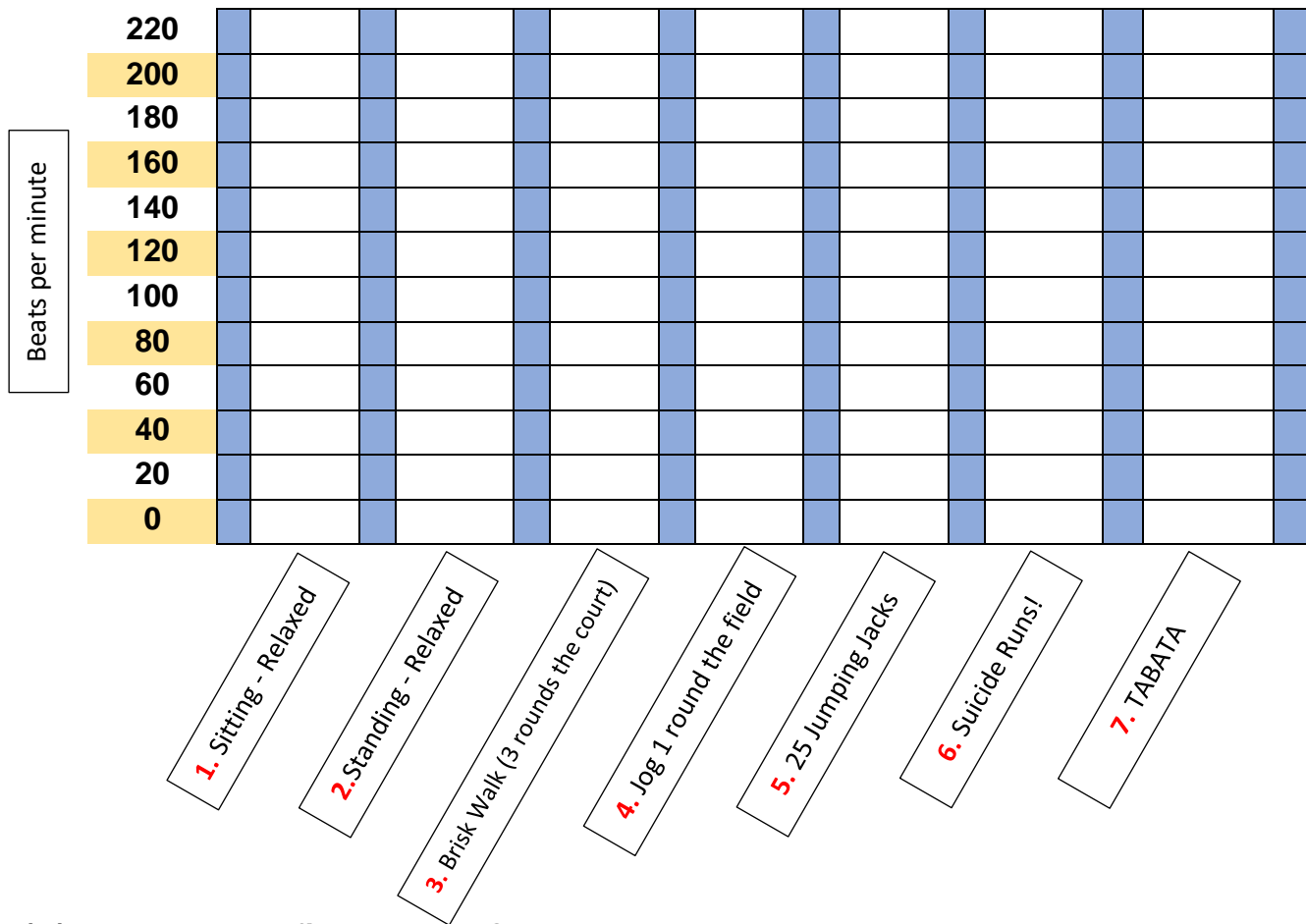| No | PHYSICAL ACTIVITY | INTENSITY | Exercising Heart Rate EHR (bpm) | $P = \frac{Exercising\ Heart\ Rate\ (EHR)}{Maximum\ Heart\ Rate\ (MHR)}\ x\ 100\%$ |
|---|---|---|---|---|
| 1 | Sitting – Relaxed | LOW | bpm | % |
| 2 | Standing - Relaxed | LOW | bpm | % |
| 3 | Brisk Walk (3 rounds the court) | LOW | bpm | % |
| 4 | Jog 1 round the field | MODERATE | bpm | % |
| 5 | 25 Jumping Jacks | HIGH | bpm | % |
| 6 | Suicide Runs | VERY HIGH | bpm | % |
| 7 | TABATA | VERY HIGH | bpm | % |

*Teacher may choose between Suicide Runs / TABATA for 'Very High' Intensity activity.*

$$P = \frac{Exercising\ Heart\ Rate\ (EHR)}{Maximum\ Heart\ Rate\ (MHR)}\ x\ 100\%$$

*your MHR is 220 − your current age*

## (F) Create your graph here!

# HEART RATE

Beats per minute

| 220 | 200 | 180 | 160 | 140 | 120 | 100 | 80 | 60 | 40 | 20 | 0 |

1. Sitting - Relaxed
2. Standing - Relaxed
3. Brisk Walk (3 rounds the court)
4. Jog 1 round the field
5. 25 Jumping Jacks
6. Suicide Runs!
7. TABATA

## (G) What are your fitness goals?

Use the table below to help you decide the target heart rate intensity you need to reach your goals.

| | TARGET ZONE HEART RATE | EXAMPLE DURATION | | |
|---|---|---|---|---|
| **Maximize Performance** | **VERY HARD** 90-100% | LESS THAN 5 MIN | 171-190 BPM | BENEFITS: develops maximum performance and speed<br>FEELS LIKE: very exhausting for breathing and muscles<br>RECOMMENDED FOR: fit persons and for athletic training |
| | **HARD** 80-90% | 2-10 MIN | 152-171 BPM | BENEFITS: increases maximum performance capacity<br>FEELS LIKE: muscular fatigue and heavy breathing<br>RECOMMENDED FOR: everybody for shorter exercises |
| **Improve Fitness** | **MODERATE** 70-80% | 10-40 MIN | 133-152 BPM | BENEFITS: improves aerobic fitness<br>FEELS LIKE: light muscular strain, easy breathing, moderate sweating<br>RECOMMENDED FOR: everybody for moderately long exercises |
| **Lose Weight** | **LIGHT** 60-70% | 40-80 MIN | 114-133 BPM | BENEFITS: improves basic endurance and fat burning<br>FEELS LIKE: comfortable, easy breathing, low muscle load, light sweating<br>RECOMMENDED FOR: everybody for longer and frequently repeated shorter exercises |
| | **VERY LIGHT** 50-60% | 20-40 MIN | 104-114 BPM | BENEFITS: improves overall health and helps recovery<br>FEELS LIKE: very easy for breathing and muscles<br>RECOMMENDED FOR: weight management and active recovery |