

Please note: Activities are member submitted and not approved prior to uploading by SHAPE America staff.

| Name of Activity | |
|--|---|
| Understanding Heart Rate & Response to Exercise | |
| Submitted by | Andy Horne, 2015 National Health Teacher of the Year |
| National Standard(s) | Standard 3 - The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness. |
| Grade Level Outcome or Performance Indicator | S3.H8.L1 Fitness Knowledge |
| Activity Objective | Students will be able to calculate their Target Heart Rate and analyze their physiological response to exercise using a heart rate monitor. |
| Grade(s) | 9-12 |
| Materials | 1 heart rate monitor per student, pen or pencil per student |
| Activity Description | |
| Have students calculate their resting heart rate and target heart rate zone. Then have students perform different exercises (outlined on the next page) while wearing heart rate monitors. See attached worksheet for students to complete using heart rate monitors. | |
| Modifications | |
| <i>Include ways to modify this activity for advanced, lower level and inclusion students.</i> | |
| For younger students (Grades 6-8) omit questions you may feel are too advanced or guide them through the worksheet as a class. | |
| Have students complete with partners or in groups. | |

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Understanding Heart Rate & Response to Exercise

My resting heart rate (RHR) is: _____ beats/min (bpm)

This time find your target heart rate by doing the math yourself. Use the formulas below:

- $220 - \text{your age} = \text{_____}$ (maximum heart rate or MHR)
- $\text{MHR} - \text{resting heart rate (RHR)} = \text{_____} \times .60 + \text{RHR} = \text{_____}$ (minimum training heart rate)
- $\text{MHR} - \text{resting heart rate (RHR)} = \text{_____} \times .80 + \text{RHR} = \text{_____}$ (maximum training heart rate)

My **Target Heart Rate Zone** is _____ - _____ beats/min

Record your Heart Rate after performing each activity on your own:

1. 30 Jumping Jacks: _____ beats/min
2. 10 Push Ups: _____ beats/min
3. 30 secs of a Plank: _____ beats/min
4. 10 Burpees: _____ beats/min
5. 60 secs of Wall Sits: _____ beats/min

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6. Sprint or run fast for 30 secs: _____ beats/min

7. See if you can get into the “Orange Zone” and stay there for 30 secs. What activity or exercise did you do? _____

Did you have to work hard to get there? YES SORT OF NO

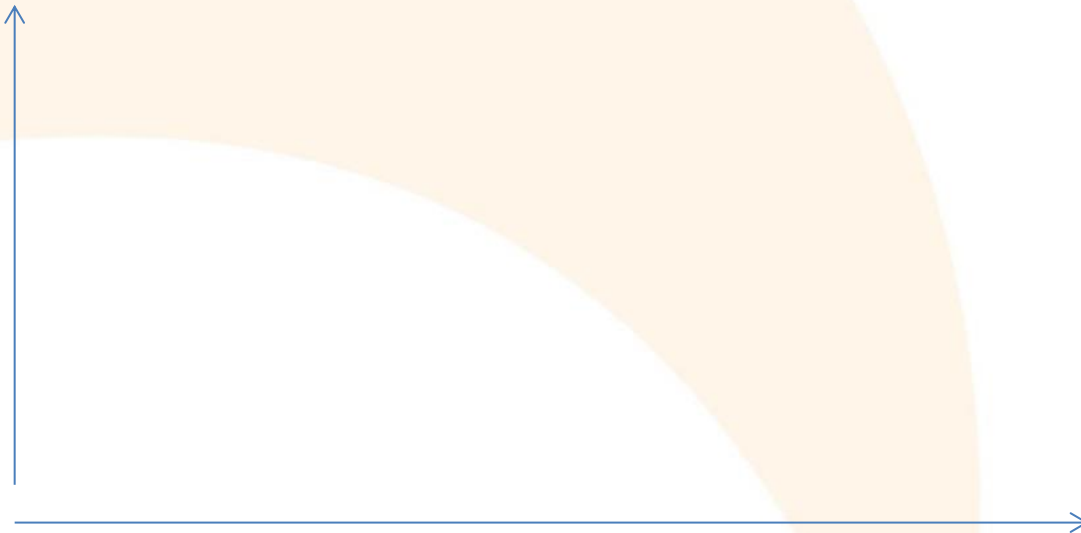
Now, jog for 4 minutes...

a. What is your heart rate immediately after the 4th minute? _____ beats/min

b. What is your heart rate 1 minute after stopping jogging? _____ beats/min

c. What is your heart rate 2 minutes after stopping jogging? _____ beats/min

In the space below plot your RHR and your 3 heart rate scores (for a, b, c) on a graph. You must also label the axes.



What does a heart rate monitor tell us?

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How can we use the information from a heart rate monitor to improve our fitness?

Explain in your own words what Target Heart Rate Zone means.

How can RHR (resting heart rate) be used to indicate how fit somebody is?

In your own words, explain the following components of the F. I. T. T. Formula? Be as specific as you can.

Frequency -

Intensity -



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Time - _____

Type - _____