

INTRODUCTION TO HEART RATE

<ul style="list-style-type: none"> • 60 second Counts <ul style="list-style-type: none"> ○ Radial Pulse: _____ ○ Carotid Pulse: _____ 	<ul style="list-style-type: none"> • 6 second Counts <ul style="list-style-type: none"> ○ Radial Pulse: _____ ○ Carotid Pulse: _____
<p>My Resting Heart Rate (RHR) is _____</p>	

KARVONEN FORMULA

Definition: The Karvonen Formula is a mathematical formula that helps you determine your target heart rate zone. The formula involves using your maximum heart rate (MHR) minus your age to come up with a target heart rate range (which is a percentage of your MHR). Staying within this range will help you work most effectively during your cardio workouts.

Below is an example of the Karvonen formula for a 14 year old person with a resting heart rate of 65 beats per minute (*to get your resting heart rate, take your pulse for one full minute when you first wake up in the morning or after you've resting for a while). This formula also includes an updated calculation of [maximum heart rate](#) (the previous formula was 220 - age, which has now been shown to be inaccurate).

$206.9 - (0.67 \times 14 \text{ (age)}) = 198$
 $198 - 65 \text{ (resting heart rate)} = 133$
 $133 * 65\% \text{ (low end of heart rate zone) OR } 85\% \text{ (high end)} = 86 \text{ OR } 113$
 $86 + 65 \text{ (resting heart rate)} = 151$
 $113 + 65 \text{ (rhr)} = 178$
 The target heart rate zone for this person would be 151 to 178

$206.9 - [0.67 \times (\text{age})] = \underline{\hspace{2cm}} = \text{MHR}$

$\underline{\hspace{2cm}} \text{ (MHR)} - (\underline{\hspace{2cm}} \text{ RHR}) = \underline{\hspace{2cm}} \text{ (HRR)}$

$\underline{\hspace{2cm}} \text{ (HRR)} * 65\% \text{ (low end of heart rate zone) or } 85\% \text{ (high end)} = \underline{\hspace{1cm}} \text{ LOW or } \underline{\hspace{1cm}} \text{ HIGH}$

$\underline{\hspace{2cm}} \text{ (LOW)} + \underline{\hspace{2cm}} \text{ (RHR)} = \underline{\hspace{2cm}}$ low end of **target** heart rate

$\underline{\hspace{2cm}} \text{ (HIGH)} + \underline{\hspace{2cm}} \text{ (RHR)} = \underline{\hspace{2cm}}$ high end of **target** heart rate

The target heart rate zone for me is _____ to _____.

PERCEIVED ECERTION INDEX		TIED 3	
	5 SO TIRED I CAN'T GO ANYMORE	A LITTLE TIRED 2	
	4 REALLY TIRED	NOT TIRED AT ALL 1	



San Marin Physical Education

Weekly Activity & Fitness Log

Name: _____

Period: _____

Total Score:

For replacement cards or make up forms:

www.SanMarinPE.weebly.com

Week 10

Strength Training Circuit

Monday ☺ ☹ ☹	Activity/Skill
CV MS ME BC FX	Score
Tuesday ☺ ☹ ☹	Activity/Skill
CV MS ME BC FX	Score
Wednesday ☺ ☹ ☹	Activity/Skill
CV MS ME BC FX	Score
Thursday ☺ ☹ ☹	Activity/Skill
CV MS ME BC FX	Score
Friday ☺ ☹ ☹	Activity/Skill
CV MS ME BC FX	Score

Muscle Group	Green Circuit	Rp / Wt
	1. Leg Lifts	
	2. Leg Curls	
	3. Leg Press	
	4. Bike	
	5. Shoulder Press	
	6. Shrugs	
	7. Pull Down	
	8. Calf Raise	
	9. Pull Down	
	10. Curls	
	11. Seated Row	
	12. Push Ups	
	13. Wall Sits	
Muscle Group	Gold Circuit	Rp / Wt
	1. Band Pull Down	
	2. Ab Board Sit Ups	
	3. Band Curls	
	4. Jump Rope	
	5. Lunges	
	6. Band Leg Curls	
	7. Calf Raise	
	8. Superman	
	9. Dumbbell Shrugs	
	10. Shoulder Press	
	11. Triceps Press	
	12. Chest Press	
	13. Med Ball Squats	

Cardiovascular Fitness

Exercise	Goal	Time/Score	PR?	HR	PEI	Grade
			<input type="checkbox"/> Y <input type="checkbox"/> N			

Teacher Notes:

Page Score _____

The Parts of Physical Fitness

When you see a person who is good at sports do you assume that the person is physically fit? You might be surprised to know that this assumption is not always true. It is true that a person who excels in sports needs a certain degree of physical fitness. However, being good at a specific skill such as running may not be a good indicator of total physical fitness; some sports require only certain parts of physical fitness.

Physical fitness is made up of 11 different parts; 5 parts are health related and 6 parts are skill related. As the terms imply, **health-related physical fitness** helps you to stay healthy, while **skill-related physical fitness** helps you perform well in sports and activities that require certain skills.

Health-Related Physical Fitness

As you read about each part of health-related physical fitness next, ask yourself how fit you think you are in each.

Cardiovascular fitness is the ability to exercise your entire body for long periods of time without stopping. Cardiovascular fitness requires a strong heart, healthy lungs, and clear blood vessels to supply the cells of your body with oxygen they need.

Strength is the amount of force your muscles can produce. Strength is often measure by how much weight you can lift or how much resistance you can overcome. People with good strength can perform daily tasks efficiently – that is, with the least amount of effort.

Muscular endurance is the ability to use your muscles many times without tiring. People with good muscular endurance are likely to have better posture and fewer back problems.

Flexibility is the ability to use your joints fully through a wide range of motion. You are flexibly when your muscles are long enough and your joints are free enough to allow adequate movement. People with good flexibility have fewer sore and injured muscles.

Body fatness is the percentage of body weight that is made up of fat when compared to the other body tissues, such as bone and muscle. For example, a person who weighs 100 pounds, 20 pounds of which is fat, is said to have a body fat level of 20 percent. People who are in a healthy range of body fatness are more likely to avoid illness and even have lower death rates than those outside the healthy range. The extreme ranges are most dangerous. Too little or too much body fat can cause health problems.

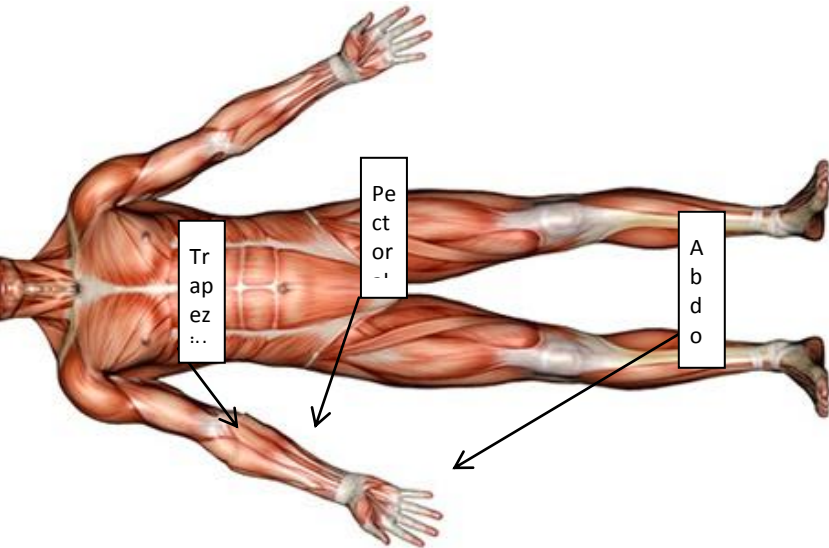
How much of each of the five health-related parts of fitness do you think you have? To be healthy, you should have some of each. If you do, you are less likely to develop **hypokinetic conditions** – health problems caused partly by lack of physical activity. Examples include **heart disease, high blood pressure, diabetes, osteoporosis, colon cancer, and being over-fat**.

People who are physically fit feel better, look better, and have more energy. You do not have to be a great athlete to have good health and to be physically fit. Regular physical activity can improve anyone's health-related physical fitness.

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1. What are the 5 components of fitness? _____

 2. Living a Healthy and Active life will help avoid _____
 3. Name at least 3 different examples of hypokinetic conditions _____

 4. Does/did anyone in your family have one of these conditions? Which ones? _____



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