UNIT: 2 Assessing Your Present Level of Fitness

GRADE LEVEL: 9-12

TIME RANGE: No less than 15 days

GRADING PERIOD: ANY

LESSON/UNIT PLANS

UNIT: 2 Assessing Your Present Level of Fitness

TOTAL LESSONS: 6 out of 15 LESSONS

OBJECTIVES:

- 1. Indicate when it is appropriate to obtain a medical examination before beginning and exercise program or test;
- 2. List the components of a good medical evaluation;
- 3. List the major components of a fitness appraisal;
- 4. Measure and analyze your cardiorespiratory endurance, muscular strength and endurance, flexibility, nutrient intake, and body composition; and
- 5. Explore challenges to assessing physical fitness in physically disabled individuals.

Students can reach these objectives through the following methods:

- 1. Complete an awareness inventory that describes, defines and discusses the above objectives.
- 2. Complete a questionnaire such as "PAR-Q & YOU to determine if you are ready to start an exercise program
- 3. Students should complete a personal fitness test that covers all the components of fitness for a baseline measurement.

LESSON 1:

Indicate when it is appropriate to obtain a medical examination before beginning and exercise program or test.

LESSON FOCUS:

- 1. Prior to the class, set-up 6-10 circuit training stations that will get students into their training heart rate zone. Provide music that is a fast beat to motivate the students and it is recommended that students can bring in their own music if it is clean and free of inappropriate content.
- 2. As a warm-up conduct a 10-15 minute instant activity that gets the students moving throughout the gym and prepares them for the main physical activity.
- 3. After the warm-up discuss and explain "Circuit Training"
- 4. Divide class into groups of 4-6 students and assign them with a station to begin the activity.
- 5. Have each station demonstrate the station exercise one at a time so all students can see the proper way to perform the exercises.
- 6. Each rotation should last for 20-30seconds with enough time for students to travel to the next station. Play music for 20-30 seconds and pause for 10-15 seconds.
- 7. The circuit training activity should last from 20-30 mins.
- 8. Have students complete the below Awareness Inventory and discuss answers with the entire class.



Name

Awareness Inventory

Date

F for the statemer This chapter will p	by the letter T for the statements that you think are true and the space by the letter that you think are false. The answers appear following the list of statements present information to clarify these statements for you. As you read the chapter ons for the reasons why the statements are true or false.
T F 1.	Every college student should have a complete medical examination before beginning any type of testing or exercise program.
T F 2.	Most college students know enough about their level of fitness and do not need to be tested.
T F 3.	A condition referred to as athlete's heart or an enlarged heart muscle resulting from aerobic exercise is dangerous and requires the immediate attention of a physician.
T F 4.	Aerobic fitness can be measured using tests involving running, step, cycling, or swimming.
T F 5.	Muscular strength testing isn't necessary because strength is not considered a key component of health-related fitness.
T F 6.	The best way to determine your abdominal endurance is to complete as many sit-ups as possible.
T F 7.	Abdominal curls are completed by performing a straight-leg sit-up to right angles.
T F 8.	A waist-to-hip ratio of more than 0.85 in women and 1.0 in men (waist almost as large as the hips in women or larger than the hips in men) indicates increased risk of heart disease.
T F 9.	Upper-body strength (arms and shoulders) in most college students is excellent.
T F 10.	Most college men and women will be capable of bench-pressing an amount equivalent to their body weight.

Answers: 1-F, 2-F, 3-F, 4-T, 5-F, 6-F, 7-F, 8-F, 9-F, 10-F

LESSON 2:

List the components of a good medical evaluation.

LESSON FOCUS:

Discuss the need for a Medical Evaluation

- 1. For the warm-up conduct the Pacer Test as an individual or as a team of 2.
- 2. Distribute the below Analyze Yourself/Assessing Fitness Testing Behavior. See below assessment.
- 3. Divide students into groups of 2-4 and have them share their answers with each other. This should take no more than 15 minutes.
- 4. After the students complete this activity share and demonstrate a proper cool down procedure after a physical activity session.
- 5. After students complete the cool down, discuss with the students the need for a Medical Evaluation.
- 6. Explain and discuss the following:
 - a. Blood-lipid analysis
 - b. Electrocardiogram (ECG)
 - c. Graded exercise test (Stress Test)
 - d. Health-related Fitness



Analyze Yourself

Assessing Fitness Testing Behavior

	Na	ame Date
		Indicate how often each of the following occurs in your daily activities and exercise espond to each item with a number from 0 to 3, using the following scale:
		0 = Never 1 = Occasionally 2 = Most of the time 3 = Always
_	1.	I regularly complete some type of aerobic fitness test to evaluate my cardiovas- cular endurance.
	2.	I complete an abdominal strength test using some type of modified sit-up at least every several years.
_	3.	I have a medical examination on a regular basis and annually if I participate in a college sport.
_	4.	I always follow a preconditioning program for a few weeks before undergoing any type of exercise testing.
	5.	I regularly complete at least one upper-body strength test such as the bench press.
	6.	I check my range of motion in the major joints in some manner at least once per year.
	7.	I regularly use nutritional software to analyze the nutrients in my diet.
	8.	I keep my personal medical file with all test results ordered by my physician for future reference and comparison.
_	9.	I use some form of body-composition analysis (skinfold measurements, hydrostatic weighing, waist-to-hip ratio, BMI) to examine my body-fat content and risk of disease.
	10.	I keep a personal record file on my fitness test scores for comparison over the years.
Scoring:		Excellent = 25-30
		Good = 19-24
		Poor = Below 19

From Physical fitness and wellness, third edition, by Jerrold S. Greenberg, George B. Dintiman, and Barbee Myers Oakes, 2004, Champaign, IL: Human Kinetics.

LESSON 3:

List the major components of a fitness appraisal.

LESSON FOCUS:

Students will complete the physical activity readiness questionnaire (PAR-Q)

- 1. For the warm-up conduct an Instant Physical Activity or the Pacer Test as an individual or as a team of 2.
- 2. Distribute the below PAR-Q. See below questionnaire.
- 3. Divide students into groups of 2-4 and have them share their answers with each other. This should take no more than 15 minutes.
- 4. After the students discuss their results with each other conduct one of the following activities:
 - a. Circuit training with 6-10 stations inside the gym
 - b. Circuit training on the outdoor track with 6-10 stations
 - c. FitDeck cards for Circuit Training inside the gym
 - d. FitDeck cards for a walking activity out on the track. When each student comes by the start after each lap they select and perform a FitDeck card. The student returns the card in the deck and performs another lap.
- 5. After the students complete this activity share and demonstrate a proper cool down procedure after a physical activity session.

Physical Activity Readiness Questionnaire - PAR-Q (revised 2002)

PAR-Q & YOU

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly; check YFS or NO.

Common se	iise is y	our dest guide when you answer these questions. Please lead the questi	ions carefully and answer each one honestry: check YES of NO.									
YES	NO	Has your doctor ever said that you have a heart condition	n and that you should only do physical activity									
	recommended by a doctor?											
	 3. In the past month, have you had chest pain when you were not doing physical activity? 4. Do you lose your balance because of dizziness or do you ever lose consciousness? 											
		5. Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in										
		your physical activity?	your physical activity?									
		6. Is your doctor currently prescribing drugs (for example,										
		7. Do you know of <u>any other reason</u> why you should not do	physical activity?									
	Y	ES to one or more questions										
If		lk with your doctor by phone or in person BEFORE you start becoming much	n more physically active or BEFORE you have a fitness appraisal. Tell									
vou	1.	ur doctor about the PAR-Q and which questions you answered YES. You may be able to do any activity you want — as long as you start slowly and	d build up gradually Or you may pood to rectrict your activities									
you		to those which are safe for you. Talk with your doctor about the kinds of activit										
answere	ed ·	Find out which community programs are safe and helpful for you.										
NO to all	auget	ions	DELAY BECOMING MUCH MORE ACTIVE:									
The second secon	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	O honestly to all PAR-Q questions, you can be reasonably sure that	if you are not feeling well because of a temporary illness									
you can:	1010011	o nonotify to <u>un</u> fruit a quotiono, you can be reasonably care that	such as a cold or a fever — wait until you feel better; or • if you are or may be pregnant — talk to your doctor									
		much more physically active – begin slowly and build up gradually.	before you start becoming more active.									
		st and easiest way to go. tness appraisal – this is an excellent way to determine your basic	PLEASE NOTE: If your health changes so that you then									
fitness s	so that y	you can plan the best way for you to live actively. It is also highly	answer YES to any of the above questions, tell your fitness									
		that you have your blood pressure evaluated. If your reading is over th your doctor before you start becoming much more physically active.	or health professional. Ask whether you should change your physical activity plan.									
L			your physical activity plan.									
		 Q: The Canadian Society for Exercise Physiology, Health Canada, and their agents assume tho undertake physical activity, and if in doubt after completing this questionnaire, consult yo 	ur doctor prior to physical activity.									
		No changes permitted. You are encouraged to photocopy the P/	AR-Q but only if you use the entire form.									
		is being given to a person before he or she participates in a physical active purposes.	ctivity program or a fitness appraisal, this section may be used for									
iogai vi dulli	mional	"I have read, understood and completed this questionnaire. Any questions	s I had were answered to my full satisfaction."									
NAME		, ,										
			DATE									
		NT										
or GUARDIAN (for participants under the age of majority)												

Reprinted from the 1994 revised version of the Physical Activity Readiness Questionnaire (PAR-Q and YOU). The PAR-Q and YOU is a copyrighted, pre-exercise screen, owned by the Canadian Society for Exercise Physiology.

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Note: This physical activity clearance is valid for a maximum of 12 months from the date it is completed and becomes invalid if your condition changes so that you would answer YES to any of the seven questions.

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LESSON 4:

Measure and analyze your cardiorespiratory endurance, muscular strength and endurance, flexibility, nutrient intake, and body composition.

LESSON FOCUS:

Measuring and analyzing your fitness profiles.

- 1. After a good 5-10 minute warm-up/instant activity, select one of the below assessment areas for each fitness component no more than 2 assessments per class session:
 - a. Cardiovascular Fitness (more than one can be selected)
 - i. PACER
 - ii. Step Test
 - iii. Walking Test
 - iv. One-mile run
 - b. Body Composition (more than one can be selected)
 - i. Body mass index
 - ii. Skinfold measures
 - iii. Body measures (% fat)
 - iv. Height/weight
 - c. Flexibility (more than one can be selected)
 - i. Back-saver sit and reach
 - ii. Truck lift
 - iii. Arm lift
 - iv. Zipper
 - v. Trunk rotation
 - vi. Wrap around
 - vii. Knee to chest
 - viii. Ankle flex
 - d. Muscular endurance (more than one can be selected)
 - i. Curl-up
 - ii. Push-up
 - iii. Side stand
 - iv. Sitting tuck
 - v. Trunk extension
 - vi. Leg change
 - vii. Bent arm hang

- e. Strength (more than one can be selected)
 - i. Arm press 1RM
 - ii. Leg press 1RM
 - iii. Arm press (per/lb/wt)
 - iv. Leg press (per/lb/wt)
 - v. Grip strength (right)
 - vi. Grip strength (left)
- 2. At the end of this 6-Lesson Unit are the FitnessGram standards for Healthy Fitness Zone and additional sample score sheets.

LESSON 5:

Measure and analyze your cardiorespiratory endurance, muscular strength and endurance, flexibility, nutrient intake, and body composition.

LESSON FOCUS:

Measuring and analyzing your fitness profiles.

- 1. After a good 5-10 minute warm-up/instant activity, select one of the below assessment areas for each fitness component no more than 2 assessments per class session:
 - a. Cardiovascular Fitness (more than one can be selected)
 - i. PACER
 - ii. Step Test
 - iii. Walking Test
 - iv. One-mile run
 - b. Body Composition (more than one can be selected)
 - i. Body mass index
 - ii. Skinfold measures
 - iii. Body measures (% fat)
 - iv. Height/weight
 - c. Flexibility (more than one can be selected)
 - i. Back-saver sit and reach
 - ii. Truck lift
 - iii. Arm lift
 - iv. Zipper
 - v. Trunk rotation
 - vi. Wrap around
 - vii. Knee to chest
 - viii. Ankle flex
 - d. Muscular endurance (more than one can be selected)
 - i. Curl-up
 - ii. Push-up
 - iii. Side stand
 - iv. Sitting tuck
 - v. Trunk extension
 - vi. Leg change
 - vii. Bent arm hang

- e. Strength (more than one can be selected)
 - i. Arm press 1RM
 - ii. Leg press 1RM
 - iii. Arm press (per/lb/wt)
 - iv. Leg press (per/lb/wt)
 - v. Grip strength (right)
 - vi. Grip strength (left)
- 2. At the end of this 6-Lesson Unit are the FitnessGram standards for Healthy Fitness Zone and additional sample score sheets.

LESSON 6:

Measure and analyze your cardiorespiratory endurance, muscular strength and endurance, flexibility, nutrient intake, and body composition.

LESSON FOCUS:

Measuring and analyzing your fitness profiles.

- 1. After a good 5-10 minute warm-up/instant activity, select one of the below assessment areas for each fitness component no more than 2 assessments per class session:
 - a. Cardiovascular Fitness (more than one can be selected)
 - i. PACER
 - ii. Step Test
 - iii. Walking Test
 - iv. One-mile run
 - b. Body Composition (more than one can be selected)
 - i. Body mass index
 - ii. Skinfold measures
 - iii. Body measures (% fat)
 - iv. Height/weight
 - c. Flexibility (more than one can be selected)
 - i. Back-saver sit and reach
 - ii. Truck lift
 - iii. Arm lift
 - iv. Zipper
 - v. Trunk rotation
 - vi. Wrap around
 - vii. Knee to chest
 - viii. Ankle flex
 - d. Muscular endurance (more than one can be selected)
 - i. Curl-up
 - ii. Push-up
 - iii. Side stand
 - iv. Sitting tuck
 - v. Trunk extension
 - vi. Leg change
 - vii. Bent arm hang

- e. Strength (more than one can be selected)
 - i. Arm press 1RM
 - ii. Leg press 1RM
 - iii. Arm press (per/lb/wt)
 - iv. Leg press (per/lb/wt)
 - v. Grip strength (right)
 - vi. Grip strength (left)
- 2. At the end of this 6-Lesson Unit are the FitnessGram standards for Healthy Fitness Zone and additional sample score sheets.

Table 5.2 FITNESSGRAM Standards for Healthy Fitness Zone*

n	m	
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Age					ĊΟ,	test & max g/min		cent at	_	mass lex		rl-up mplete
5						32	17	21	16.2	2	10	
6	Comple		Particip				32	17	21	16.2	2	10
7	distanda	e. Time	run. Lap standar				32	17	22	16.2	4	14
8		nended.	recomm				32	17	22	16.2	6	20
9							32	17	23	16.2	9	22
10	12:30	9:30	15	41	40	48	32	17	23.5	16.6	12	26
11	12:00	9:00	15	41	39	47	32	17	24	16.9	15	29
12	12:00	9:00	23	41	38	46	32	17	24.5	16.9	18	32
13	11:30	9:00	23	51	37	45	32	17	24.5	17.5	18	32
14	11:00	8:30	23	51	36	44	32	17	25	17.5	18	32
15	10:30	8:00	23	51	35	43	32	17	25	17.5	18	35
16	10:00	8:00	32	61	35	43	32	17	25	17.5	18	35
17	10:00	8:00	41	61	35	43	32	17	26	17.5	18	35
17+	10:00	8:00	41	61	35	43	32	17	27.3	18.0	18	35

Age	l	unk lift ches		h-up nplete	pu	dified II-up _{mplete}		l-up nplete	ha	ed arm ang onds	Back-saver sit & reach** inches	Shoulder stretch
5	6	12	3	8	2	7	1	2	2	8	9	
6	6	12	3	8	2	7	1	2	2	8	9	
7	6	12	4	10	3	9	1	2	3	8	9	
8	6	12	5	13	4	11	1	2	3	10	9	≂ touching fingertips ıer behind the back
9	6	12	6	15	4	11	1	2	4	10	9	igertij back
10	9	12	7	15	4	13	1	2	4	10	9	g fin the
11	9	12	7	15	4	13	1	2	6	12	10	hing ind
12	9	12	7	15	4	13	1	2	7	12	10	ssing ≈ touchin together behind
13	9	12	7	15	4	13	1	2	8	12	10	= t ier
14	9	12	7	15	4	13	1	2	8	12	10	Passing togeth
15	9	12	7	15	4	13	1	2	8	12	12	Pass
16	9	12	7	15	4	13	1	2	8	12	12	Name .
17	9	12	7	15	4	13	1	2	8	12	12	
17+	9	12	7	15	4	13	1	2	8	12	12	

^{*} Number on left is lower end of HFZ; number on right is upper end of HFZ
**Test scored Pass/Fail; must reach this distance to pass.

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Table 5.1 FITNESSGRAM Standards for Healthy Fitness Zone*

BOYS

Age	One-mile run PACER # laps		2			cent at	Body mass index		Curl-up # complete			
5							25	10	20	14.7	2	10
6	Comple		Particip				25	10	20	14.7	2	10
7	distanc standar		run. Lap standar				25	10	20	14.9	4	14
8		nended.	recomm				25	10	20	15.1	6	20
9							25	10	20	15.2	9	24
10	11:30	9:00	23	61	42	52	25	10	21	15.3	12	24
11	11:00	8:30	23	72	42	52	25	10	21	15.8	15	28
12	10:30	8:00	32	72	42	52	25	10	22	16.0	18	36
13	10:00	7:30	41	72	42	52	25	10	23	16.6	21	40
14	9:30	7:00	41	83	42	52	25	10	24.5	17.5	24	45
15	9:00	7:00	51	94	42	52	25	10	25	18.1	24	47
16	8:30	7:00	61	94	42	52	25	10	26.5	18.5	24	47
17	8:30	7:00	61	94	42	52	25	10	27	18.8	24	47
17+	8:30	7:00	61	94	42	52	25	10	27.8	19.0	24	47

Age	- 1	runk lift ches		h-up nplete	pu	dified II-up _{mplete}		l-up nplete	ha	d arm ing _{onds}	Back-saver sit & reach** inches	Shoulder stretch
5	6	12	3	8	2	7	1	2	2	8	8	
6	6	12	3	8	2	7	1	2	2	8	8	
7	6	12	4	10	3	9	1	2	3	8	8	
8	6	12	5	13	4	11	1	2	3	8	8	Passing = touching fingertips together behind the back
9	6	12	6	15	5	11	1	2	4	10	8	igertij back
10	9	12	7	20	5	15	1	2	4	10	8	ssing = touching fin together behind the
11	9	12	8	20	6	17	1	3	6	13	8	ië ëi d
12	9	12	10	20	7	20	1	3	6	13	8	onc
13	9	12	12	25	8	22	1	4	12	17	8	= t
14	9	12	14	30	9	25	2	5	15	20	8	sing getf
15	9	12	16	35	10	27	3	7	15	20	8	bass to
16	9	12	18	35	12	30	5	8	15	20	8	
17	9	12	18	35	14	30	5	8	15	20	8	
17+	9	12	18	35	14	30	5	8	15	20	8	

^{*}Number on left is lower end of HFZ; number on right is upper end of HFZ **Test scored Pass/Fail; must reach this distance to pass.
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FITNESSGRAM PHYSICAL FITNESS

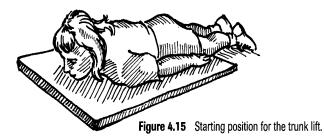
SCORES

CURL-UP:	/
TRUNK LIFT: 6 9	12 / 6 9 12
PUSH-UPS: :	
SIT AND REACH: R_	_L/RL
SHOULDER STRETCI	H: RL_/RL
PACER Run:/	,
Write what you though	nt about the test:

My Fitness Goal Sheet

My Goals for the next test!
CURL-UP:
TRUNK LIFT: 6 9 12
PUSH-UPS:
SIT AND REACH: R=L=
SHOULDER STRETCH: R= L=
PACER RUN:
Write how you will physically get ready for the test:

Trunk Lift



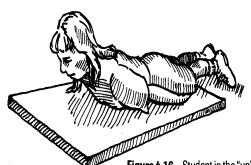
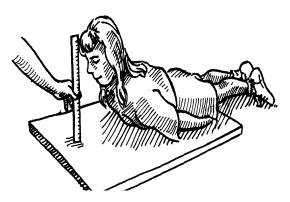


Figure 4.16 Student in the "up" position for the trunk test.



Circle your score? 6 9 12 Circle your score? 6 9 12

Circle your score? 6 9 12 Circle your score? 6 9 12

Back-Saver Sit & Reach

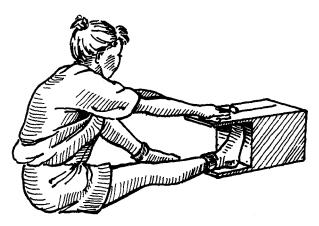


Figure 4.26 Starting position for measuring the right side.

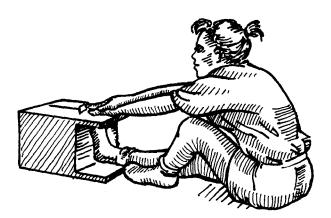


Fig. 4.27 Back-saver sit and reach stretch for the right side.

what was your score for Left Leg:	
What was your score for Right Leg:	
What was your score for Left Leg:	
What was your score for Right Leg:	

Shoulder Stretch





Figure 4.28 Shoulder stretch on the right side.

Figure 4.29 Shoulder stretch on the left side.

Circle for Right side: YES or NO

Circle for Left side: YES or NO

Circle for Right side: YES or NO

Circle for Left side: YES or NO

Push-Ups

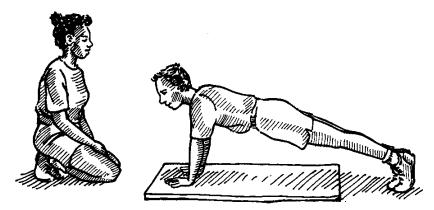


Figure 4.18 Starting position for the push-up test.

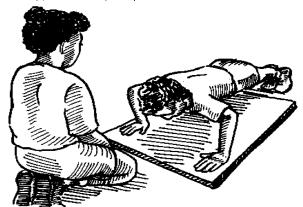


Figure 4.19 Student in the "down" position for the push-up test.

How	many	did you	do?	
How	many	did you	do?	

Curl-Up

MUSCLE STRENGTH, ENDURANCE, AND FLEXIBILITY

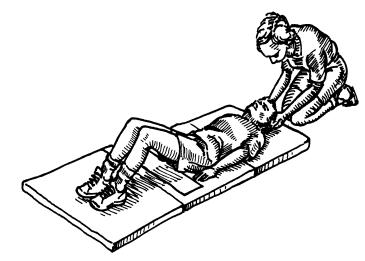
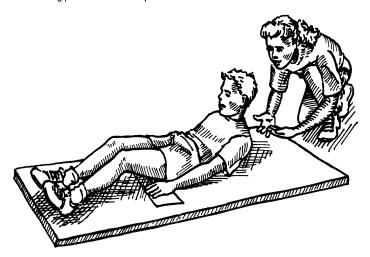


Figure 4.12 Starting position for the curl-up test.



How many	did	you	do?	
----------	-----	-----	-----	--

How many did you do? _____

FITNESSGRAM PACERTest - Individual Score Sheet

Student Name			Cla	ss		_ Date		
	2	3	4	5		7	8	9
10		12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54

Source: FITNESSGRAM Test Administration Manual, Second Edition

The PACER Individual Score Sheet

Teacher	acher			Cla	Class Period				Date				
Laps (20-meter lengths)													
1	1	2	3	4	5	6	7						····
2	8	9	10	11	12	13	14	15					
3	16	17	18	19	20	21	22	23					
4	24	25	26	27	28	29	30	31	32				
5	33	34	35	36	37	38	39	40	41				
6	42	43	44	45	46	47	48	49	50	51			
7	52	53	54	55	56	57	58	59	60	61			
8	62	63	64	65	66	67	68	69	70	71	72		
9	73	74	75	76	77	78	79	80	81	82	83		
10	84	85	86	87	88	89	90	91	92	93	94		
11	95	96	97	98	99	100	101	102	103	104	105	106	
12	107	108	109	110	111	112	113	114	115	116	117	118	
13	119	120	121	122	123	124	125	126	127	128	129	130	131
14	132	133	134	135	136	137	138	139	140	141	142	143	144
15	145	146	147	148	149	150	151	152	153	154	155	156	157
Lane Student Name								Laps	Comp	leted _			

LESSON 7:

Analyze your cardiorespiratory endurance, muscular strength and endurance, flexibility, nutrient intake, and body composition.

LESSON FOCUS:

Analyze your fitness profiles.

- 1. After a good 5-10 minute warm-up/instant activity have students complete the below worksheets.
- 2. The best procedure for determining the status of your dietary intake is to keep careful records of all food and fluid intake for 3 to 4 days (2 to 3 weekdays and 1 weekend day) by carefully recording this information within the following website: www.myfitnesspal.com. This is a free online software program for diet analysis.
- 3. After your students complete the record keeping have them complete the below questions:
 - a. What was daily calorie intake that was recommended?
 - b. Provide your goal that you listed.
 - c. List the days with total calorie intake and what days you met your goal.
 - d. List the activities that you performed and the calories that you burned.
 - e. How many calories, carbs, fat, and protein did you consume a day and what were your goals?
 - f. How much remained or were over the goal?
- 4. Discovery Activity 2.1
 - a. Have students list the appropriate category how they performed in the various components of health-related fitness:
 - b. What components were above average, average, or poor.