

ACTIVITY 1

Define the following terms, identifying their importance to fitness training and programming.

Super-sets	Supersets are when you do one exercise straight into the next exercise with no rest to fatigue one particular muscle quicker. This means it is at a higher intensity making a faster workout. This means the next day of training can be on another muscle group.
Pre-fatigue	Pre fatigue means working on a particular muscle group in a modified exercise before the main exercise. An example would be doing shoulder press to fatigue your muscles before doing bench press.
Interval training	Interval training means training at a high intensity then having a rest. This allows for the energy systems to recover before going again.

ACTIVITY 2

It is integral that a thorough screening and testing process is undertaken prior to the writing of an exercise program.

a) Why is this an important process?

b) What is the most important factor when beginning the program creation process?

Why is this an important process?

1.
Background information about any injuries the client may have and how the program can be worked around this
2.
The program should be designed around their goals and aims
3.
To ensure you can show them the progress they have made from the start and to design a program around their experience and skill level.

What is the most important factor when beginning the program creation process?

It is vital to know the clients capability. By knowing how strong and fit the client is means that a program can be designed to achieve their goals and make it hard enough to see results. It is also helpful to know what their lifestyle is like and how gym fits into their schedule. Some clients maybe able to train more than others.

Group Activity – In groups of 4 make an infographic promoting the benefits of exercise on your selected system. Links must be made to Resistance and Cardiovascular training.

Activity 5

Explain the effects of different exercises on the following major body systems:

- Nervous
- Skeletal

Nervous

When doing fitness training the nervous system benefits a lot as by doing exercises multiple times in one week enables your brain to remember how to do the exercise correctly. It also remembers how it should feel and where you should feel the pain. When doing cardiovascular training your blood is flowing faster and therefore your brain is exposed to more oxygen and nutrients. In comparison resistant training enables your body to activate prime movers in specific movements.

Skeletal

When doing resistance training your bone tissue can respond in increasing muscles mass and strength. Resistance training also helps to avoid osteoporosis, fractures and later injuries in life. By doing cardio training means your body can improve balance and coordination. Your bones adapts to certain exercises and decreases the chance of major injuries by doing cardio training.

CASE STUDY 1

Mark is an 18 year old who has some experience (less than 6 months) with resistance training. He is not interested in cardiovascular training, but has listed in his goals that he wants to reduce body fat and improve his general feeling of wellbeing. Mark is a non-smoker, but drinks most weekends. His other listed goals include improve strength and growth.

Mark is interested in training three (3) times per week for up to 90 minutes per session. He will be training with a training partner, who is of similar experience. Mark is currently working as an apprentice carpenter, and complains of tightness in his lower back.

Respond to the following points:

- a) Consider what you should do with Mark before he even enters the gym:
 - Identify some general advice you could give Mark with regards to meeting his goals.
 - Would you recommend Mark to an Allied Health Professional (AHP) before commencing work with him?
- b) Consider the most appropriate training style for Mark:
 - Is it a good idea for Mark to completely ignore cardiovascular training?
 - With his listed goals, is resistance training alone going to be the best method to achieve them?
 - Suggest a basic circuit training session that Mark could use to keep up his cardiovascular fitness while still suiting his preferences.
- c) With Mark's goals in mind, create a program that best suits his current experience and time commitment to training. Use the *Fit to Learn Program Card* template.

a) Identify some general advice you could give Mark about meeting his goals.

1. I would advise to mark to look into some cardiovascular training as it will help reduce body fat
2. Mark should also go and see an allied health professional regarding his lower back pain as some exercises may need to be avoided
3. Mark should also consider not drinking as much on the weekends to reach his goal of losing body fat and improve his general well-being

Would you recommend Mark to an Allied Health Professional (AHP) before commencing work with him?

Yes, mark should see a physio or GP to see how severe his back injury is and if it is going to affect his training. Mark may need to strengthen his back or not doing exercises balancing that area.

b) Is it a good idea for Mark to completely ignore cardiovascular training?

No, mark should consider some cardiovascular training to gain better fitness and help lose weight. Cardiovascular training will improve marks well being but resistance training can also be used to achieve his goals if that is preferred.

With his listed goals, is resistance training alone going to be the best method to achieve them?

No, resistance training will benefit Mark in losing some body fat and gaining muscle. It will also help his general feeling and well-being but cardiovascular training will be helpful if injuries are present in his lower back. Cardiovascular training is also easier to lose body fat and resistance is good for gaining muscle. Mark should consider training tabata. This will ensure that Mark meets his cardio requirements by entering the lactic acid system. This means he can do cardio training with rest and for a shorter amount of time.

Suggest a basic circuit training session that Mark could use to keep up his cardiovascular fitness while still suiting his preferences.

Warm-up: 2 minutes of jogging on the treadmill, squat hold, shoulder with stick, bike for 1 minute, leg stretches

Station 1	Station 2	Station 3	Station 4
e.g. A) 30s push ups (rest 30s)	B) 30s Crunches (rest 30s)	C) 30s walking lunges (rest 30s)	D) 30s Plank (rest 30s)
10 jump squats	10 jump lunges	10 burpees	2 broncos
20 jump squats	20 jump lunges	20 burpees	4 broncos
30 jump squats	30 jump lunges	30 burpees	6 broncos

FIT TO LEARN PROGRAM CARD			Client Name: Mark		
Trainer:	Eva Wilde			Date:	26/10/21
Goals/Aims	Lose body fat and improve his general feeling of well-being				
Contraindications	Sore lower back, drinks on the weekends				
Session length	90 minutes				
Warm up	Dynamic stretching, 5 minute jog				
Exercise	EPC	Sets	Reps	%1RM/Weight	Rest
Squat	201	3	12	75%	60s
Deadlift	201	3	12	75%	60s
Lat pull down	201	3	15	75%	60s
Glute bridges	201	3	15	75%	60s
Bench press	201	3	12	75%	60s
Triceps dips	201	3	12	75%	60s
Other training methods: AMRAP / INTERVAL / TABATA					
Interval- 30 seconds on 15 seconds off					
Cardiovascular training method		Time/Distance		Level/Resistance/Intensity	
Bike		10 minutes		Medium intensity 30 second break after 5 minutes	

Cool down	Stretches focusing on back and muscles and targeted
Stretches	Lower back stretches