ACTIVITY 1
Define the following terms, identifying their importance to fitness training and programming.

Super-sets	A set followed up by fellow more straight after each other. Supersets play an important role in training as they allow your muscles to fatigue which results in muscle growth.
Pre-fatigue	Avoiding smaller muscles before using bigger muscles on a harder exercise. This is important so for the harder exercises your not fully fatigued out meaning you can perform more weight and reps.
Interval training	Interval training is training consisting of high intensity and low intensity periods. This is important as it works your muscles very well but also allows them to rest and recover.

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. To find out if the person has any injuries or weakness that they need to avoid or work on. 2. To meet the clients goals. 3. To relief overworked muscles muscles for sets in the future.
What is the most important factor when beginning the program creation process?
Finding out and understand the clients goals and needs. Also finding out if they have any injuries that they need to avoid or need to work on.

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
The exercise takes place and the sympathetic nervous system is turned on. The heart then rises fast. The heart rate also starts to rise by thinking about the exercise while performing it. Which is known as anticipatory heart rate response.
Skeletal
The skeletal bones start to adapt and become denser when using weights. After time it starts to adapt even more and allows heavier weight to be lifted. Resistance training also increases muscular endurance and muscular strength. This also strengthens the skeletal system and helps build balance in the body.

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. Start to tone down the drinking as much as you can.
2. Perform proper technique while lifting.
3. Have a well balanced healthy diet.

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

Yes as his lower back tightness could be something serious and could affect his training.

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

No as he needs to have somewhat of a balance between cardio training and resistance training. He also wants to improve his general feeling of well being and doing cardio training will help with that. Also will assist in burning extra calories for body fat loss.

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

No as it does not have cardio vascular training which will help him with his well-being and will also help him loose body fat.

Suggest a basic circuit training session that Mark could use to keep up his cardiovascular fitness while still suiting his preferences.			
Warm-up:			
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 squats	20 star jumps	15 sit ups	Skipping rope 30 sec
15 hip thrusts	15 kettle bell swings	20 flutter kicks	5 incline pushups
10 burpees	12 high knees	30 sec side plank	10 mountain climbers

FIT TO LEARN PROGRAM CARD				Client Name: Mark	
Trainer:	Andre			**Date:**	9/11/21
Goals/Aims	Gain muscle, lose body fat, improve wellbeing				
Contraindications	Tight back				
Session length	90m				
Warm up	Stretches, rotator cuff movements, dynamic lunges, wooden stick back twists				
Exercise	**EPC**	**Sets**	**Reps**	**%1RM/Weight**	**Rest**
Bench press	201	4	8	70%	2mins
Shoulder press	201	4	8	70%	2mins
Weighted lunges	201	4	12	70%	2mins
Tricep pull downs	201	4	12	70%	2mins
Last pull downs	201	4	12	70%	2mins
RDL's	201	4	8	70%	2mins
Other training methods: AMRAP / INTERVAL / TABATA					
Cardiovascular training method			**Time/Distance**	**Level/Resistance/Intensity**	
Skipping			10mins	Medium 5mins, High 5mins	
Cool down	Static stretches head down, low intensity				
Stretches	Back stretches, leg stretches, shoulder stretches with band.				