Fitness circuits are a great way to maximize the time spent on fitness and recombining a few basic exercises keeps it from being repetitive. Circuits can target cardiorespiratory endurance, muscular strength and endurance, or a combination of them both, interval training. It costs more energy to raise the heart rate than maintain it, so interval training can maximize fitness gains by including both cardiorespiratory endurance and muscular strength and endurance activity while burning more calories. Once a base set of exercises has been established with correct technique, they can be reorganized to tweak fitness goals in a time efficient manner – less instruction, more activity.

The format can be changed to keep the activity from becoming rote and to adjust for fitness goals. Whole group instruction is important at the beginning to teach technique and check for understanding of objectives, but circuits or stations allow for more efficient use of equipment. Half group is useful for simple cardio activities but a need for greater supervision.

The time intervals can be adjusted for the fitness objective. Generally, cardio intervals are double the strength intervals. If the goal is to increase cardiorespiratory endurance, make the cardio interval longer. If the goal is muscular endurance, then the weights are lighter for a longer period of time.

Develop your own set of exercises, cut and paste the suggested base exercises, or print the station cards from the presentation. Teach the technique, and recombine them in endless ways to provide a quick but effective circuit for your students. Not all exercises need to be done each time, and intervals can be shortened or lengthened to provide variety and a well-rounded workout.

**Lesson Objective**
Students will demonstrate knowledge of movement principles through aerobic participation in cardio activity and proper technique in strength activity.
Fitness Objective
To improve muscular strength/endurance and aerobic capacity

NASPE Standards
Demonstrates understanding of movement concepts, principals, strategies, and tactics as they apply to the learning.
Participates regularly in physical activity.

State Standards
2 - Application of movement principals and concepts
3 - Demonstration of achievement and maintenance of fitness

Character Standards
Responsible for self control and safety during activity around equipment.

Warm up - low intensity cardio and movement rehearsal
Evaluation - heart rates and monitor exercises for technique

BASE CARDIO ACTIVITIES
jump rope    jog      step     rebounder
heavy rope   agility ladder dot drills athletic movement
bosu        slide     bikes    cardio machines

BASE MUSCULAR GROUPS AND STRENGTH/ENDURANCE ACTIVITIES

Lower Body       Upper Body
Squats - glutes  Lateral raise, overhead press-deltoids
Lunges - quads  Chest press, push ups - pects
Modified dead lift - hamstrings  Rear flyes/trap squeeze - trapezius
Hamstring curl - hamstrings  Bicep curls - biceps
                        French press, kick back - triceps

Core
Curl up, hover - abdominals  back extensions - spinae erector

Equipment: dumb bells, plates, resistance tubes, body bars, or just body weight
BASIC FORMATS

Whole group Cardio/whole group strength
Cardio activities or instructed patterns/instructional technique for strength work
Half group Cardio/ whole group strength
The class splits to 2 groups for cardio work and comes back to whole group for strength.
Cardio Stations/ whole group strength
Maximizes equipment use. Students rotate cardio stations, returning to whole group for strength. Good opportunity for instruction.
Cardio stations/ strength stations
Students rotate the circuit. Maximizes equipment. Requires student understanding of all stations.

GETTING YOUR TWEAK ON

Cardio - lengthen the cardio interval

Cardio - anaerobic threshold training - during the cardio interval, rev up to top of THZ for 30-45 seconds, come down to bottom of THZ to recover. Do 2 or 3 sets.

Compound setting - set up strength interval for two exercises for the same muscle group, i.e. hammer curls with dumbbells, bicep curls with bar.

Strength - one plane of movement for one muscle group using heavy weight, slow controlled movement, and eccentric contractions (negative work)

Tag team - Controlled by repetition, not time. Either in small groups or pairs, half the group performs cardio activity (i.e., 3 laps) while other performs strength activity. This requires a posted list of strength exercises, student knowledge of exercises and teacher trust.

Noah's ark - station work in groups of two or partnered tasks.
*Layers* - a lot of set up but allows for control of movement. Set up a grid of rows of cardio stations and alternating strength stations. Students rotate through their column. For example:

<table>
<thead>
<tr>
<th>Jump rope</th>
<th>Jump rope</th>
<th>Jump rope</th>
<th>Jump rope</th>
<th>Jump rope</th>
<th>Jump rope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lunges</td>
<td>Lunges</td>
<td>Lunges</td>
<td>Lunges</td>
<td>Lunges</td>
<td>Lunges</td>
</tr>
<tr>
<td>Step</td>
<td>Step</td>
<td>Step</td>
<td>Step</td>
<td>Step</td>
<td>Step</td>
</tr>
<tr>
<td>Bicep Curl</td>
<td>Bicep Curl</td>
<td>Bicep Curl</td>
<td>Bicep Curl</td>
<td>Bicep Curl</td>
<td>Bicep Curl</td>
</tr>
<tr>
<td>Dot Drill</td>
<td>Dot Drill</td>
<td>Dot Drill</td>
<td>Dot Drill</td>
<td>Dot Drill</td>
<td>Dot Drill</td>
</tr>
<tr>
<td>Squats</td>
<td>Squats</td>
<td>Squats</td>
<td>Squats</td>
<td>Squats</td>
<td>Squats</td>
</tr>
</tbody>
</table>

**Super setting** - Opposing muscle groups are together in each station

- Biceps
- Deltoid
- Pects
- Hamstring
- Squats
- Triceps
- Lats
- Traps
- Quads

**Core Stability** - insert a balance or core strength station after each muscular strength station or between cardio stations.

**Skill stations** - insert a skilled movement station after each muscular strength station, i.e. practice volleyball forearm pass