

Game Guide for Teachers

Bubble Rubble

Health and Gameplay

Bubble Rubble is a game that's all about exercise. The goal of the game is to pop as many aerobic activities as possible and collect aerobic exercise minutes. According to the CDC, it is recommended that children and adolescents participate in at least 60 minutes of moderate intensity physical activity most days of the week, preferably daily. The player is presented with bubbles that contain icons that represent three types of activities:

1. Aerobic activities
2. Strength activities
3. Sedentary activities

Aerobic Activities

Aerobic means “with oxygen.” In order to perform an aerobic activity, the body must produce extra energy that comes from oxygen. This oxygen is needed for the muscles that are working extra hard during the aerobic activity. Oxygen gets to the muscles through blood, which is pumped by the heart. This results in a higher pulse rate and heavier breathing for an extended period of time. Examples of aerobic activities seen in *Bubble Rubble* include:

- Basketball
- Biking
- Walking

When a player successfully hits an Aerobic Activity Bubble, 1, 3, or 5 Minute Bubbles are released. The number of Minute Bubbles that are released represents how vigorous or physically intense the aerobic activity is. This is based on the activity's Metabolic Equivalent level or MET, one of the ways scientists measure physical activity. This unit is used to estimate the amount of oxygen the body uses during the activity. The harder your body works during the activity, the more energy the body uses, and the higher the MET.

Any activity that burns 3 to 6 METs is considered moderate-intensity physical activity. Aerobic activities with a moderate MET seen in *Bubble Rubble* include: raking, horseback riding, skateboarding, rowing, walking, and washing the car. Any activity that burns > 6 METs is considered vigorous-intensity physical activity. Aerobic activities with a high MET seen in *Bubble Rubble* include: football, running, surfing, basketball, and biking. Aerobic activities with very high METs seen in *Bubble Rubble* include:

- Soccer
- Martial arts
- Rollerblading
- Ice skating



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Strength Activities

By Level 5, players begin to see Activity Bubbles that contain strength activities. Strength activities are also known as anaerobic exercises. Anaerobic means “without oxygen.” In order to perform an anaerobic activity, the body must use isolated muscles with a high rate of energy for a short period of time. Although strength activities help build muscle mass and should be included in a balanced fitness regimen, they burn fewer calories and have fewer cardiovascular benefits than aerobic activities. Because of this, when the player hits a Strength Activity Bubble, no Minute Bubbles are released.

Examples of strength activities seen in Bubble Rubble include:

- rock climbing
- Yoga
- Lunges
- Sit-ups
- Side bends
- Chest press
- Resistance training

Sedentary Activities

A sedentary activity or something that is inactive requires little energy to complete. Unlike a pastime that is active, the body does not need extra oxygen, breathing does not become labored, and pulse does not increase. Sedentary activities measure at only 1 MET because little energy (oxygen) is needed for the body to successfully perform them. Sedentary activities seen in Bubble Rubble include:

- Sleeping
- Watching TV
- Music lessons
- Arts and crafts
- Shopping
- Playing cards



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Teacher Resources

For more information about METs, please see the Centers for Disease Control (CDC) physical activity website:

<http://www.cdc.gov/nccdphp/dnpa/physical/everyone/measuring/index.htm>.

