Science lesson plan 1

Pump You Up: Exploring Other Areas of Fitness

**Quick summary:** Students will learn how physical activity benefits their physical and mental health right now, not only in the long run.

**How long will it take:** 30 minutes

**How does it work:**
Begin by giving a basic overview of the skeletal and muscular systems using basic biology resources and the information below:

The muscular and skeletal systems are critical to helping us do lots of things we love—they are the systems that allow us to move! Even though it sounds strange, when you get moving, it helps you stay moving. By getting lots of physical activity, we train and strengthen our muscles and bones which can have a noticeable impact on how our bodies look and feel.

To build and strengthen muscle, your body needs protein and minerals (especially potassium and calcium) but it also needs to work!

Give an overview of how physical activity has noticeable benefits on the way you look and feel:

1. **Regular physical activity can actually help boost your energy levels throughout the day so you’ll be able to play harder, focus better and have the energy to do all the things you want.**

2. **Regular and consistent exercise can help you maintain a healthy weight.**

3. **Chemicals released by your brain during physical activity called endorphins can actually help improve your mood and help you feel less stressed and more confident about yourself.**

4. **There is research to support the idea that getting regular physical activity can actually help you do better in school! Students who are regularly physically active tend to do better on tests and are able to concentrate better in class.**
To give your muscles and bones the best possible workout, explain the difference between aerobic and anaerobic activities:

Aerobic activities use the major muscles and give the heart (and lungs) a continuous workout. The term aerobic means “with oxygen” because these types of activities require oxygen and a moderate amount of effort over a prolonged period of time. Biking, jogging, swimming, walking or dancing are all examples of aerobic exercise.

Anaerobic activities build and tone muscles but are not as beneficial to the heart and lungs as aerobic activities. The term anaerobic means “without oxygen” because these short, intense activities don’t require oxygen at the cellular level to complete. Push-ups, leg lifts, weight lifting, and sprinting are anaerobic activities.

Discussion questions:

1. Have students evaluate if they get more aerobic or anaerobic exercise. What are the benefits of each?

2. There are many benefits of physical activity. Name some examples of each type (physical, mental, social, emotional).