



Science Sauce Online

A source for free flipped learning lessons

Flipped learning reverses the traditional classroom process of “learn it in school, practice at home”. Flipped learning involves students learning new content at home through a video, reading, listening or other activity. They then come to class with the foundation knowledge, ready to really engage with the topic. This is a flipped learning lesson with self-study materials and suggested class activities.

Resources for this lesson, including the student tasks, can be found at:

ScienceSauceOnline.com

Enter lesson code:

01204

Lesson Topic:

AEROBIC AND ANAEROBIC RESPIRATION

Age: 14-16

Self study input method: Video

Self study task: Question sheet

Classwork prep time: Near zero

STUDENT PRE-CLASS TASK

- Watch the video: “Respiration: Aerobic vs Anaerobic”.
- Answer the questions on the student homework task sheet.

IN-CLASS TASKS

SPORTS MAGAZINE ARTICLE: There are a number of health benefits to doing “cardio” (aerobic exercise). Students will write a magazine article (on the **handout**) for a sports/fitness magazine explaining how to do aerobic exercise, with information presented about how aerobic and anaerobic exercise are achieved and how they differ. **See the student handout.** *If ICT resources are available, students could type out their article, using a two column layout and inserting images.*

Time (mins)	Students...	Teacher...
2	In groups of about 4 or 5, review answers to the homework task.	Monitors.
3	Review answers (and make corrections if necessary).	Gives answers to the student task sheet.
3	Read the handout.	Sets the task: gives out the handouts.
5	Work in groups of 3 to brainstorm information to be included in the article	Monitors.
20-30	Work individually to write magazine articles. Optionally this could be completed as a small group (pairs or 3s) task.	Monitors and offers feedback.
5	Plenary: In pairs: “The answer is ____, now write the question” activity*	Sets the “answer”. Repeat, time depending.

“The answer is...” activity involves choosing a keyword or phrase from the lesson, and having students create a question for which that is the answer. Examples for this lesson:

- The answer is **lactic acid**, what is the question?
- The answer is **explosive**, what is the question?
- The answer is **out of breath**, what is the question?
- The answer is **oxygen debt**, what is the question?

ANSWERS TO STUDENT TASK

Answers to the student task sheet will be relatively obvious for subject teachers, and can all be found by reviewing the student self-study resources.

Answers are not published here, as these sheets are easily accessible by students. If you need clarification on any of the questions please feel free to email me and I'll get back to you ASAP.

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