



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:

01501

Lesson Topic:

STRUCTURE OF THE HEART

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: “Structure of the Heart”.
- Answer the questions on the student homework task sheet.

IN-CLASS TASKS

BARRIER DRAWINGS: Students create unique labeled drawings of the heart. They must make them unique by colouring the chambers in distinct, different colours, with coloured writing for the labels.

Once each student has completed their drawing, they work in pairs on their barrier drawings:

- Students sit in pairs.
- Sit so that they can't see each other's drawings (they can be separated by screens or simply sit back-to-back).
- One student has a blank sheet of paper while the other has their drawing in front of them.
- The student with the drawing must describe their drawing, while their partner attempts to recreate it as accurately as possible.
- The discussion focuses on using correct vocabulary and an in-depth knowledge of the heart's structure. In the activity, students will use descriptive phrases such as:
 - "The left ventricle is shaded yellow."
 - "The label for the left atrium is written inside of the chamber in purple, and the chamber is shaded green".
- Once complete, compare the drawings.
- The describing and drawing students switch roles and repeat the activity.

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.
2	Listen to instructions	Explains the task, giving specific instructions to draw a unique, colourful drawing of the heart with a different colour for each chamber, blood vessel and label.
15	Complete their drawings alone.	Monitors and ensures students are completing the heart diagrams based on the instructions.
20	Get into pairs (with a student they were not previously sitting next to) and complete their barrier drawings.	Monitors the activity. Gives prompts where necessary if students are struggling.
5	Plenary: Work in groups of 3. Each student takes it in turns to say the initials of a section of the heart, while the other two must guess what it is. For example, a student may say "LA" and the other students would guess "Left Atrium". Students keep a tally of their points and see who in the group of 3 can get the most correct answers.	Monitors.

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.

contact@sciencesauceonline.com