



# 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:

**01202**

**Lesson Topic:**

**ACTIVE TRANSPORT**

**Age:** 14-16

**Self study input method:** Video

**Self study task:** Question sheet

**Classwork prep time:** Moderate

## STUDENT PRE-CLASS TASK

- Watch the video: “Active Transport”.
- Answer the questions on the student homework task sheet.

## IN-CLASS TASKS

**PASTA POSTER:** Students use dried foods to create a 3D poster demonstrating active transport. (Pasta is not essential but it is an ideal material as it is dry, solid, and available in a range of shapes).

*The teacher may choose to have students bring their own dried food materials for this lesson and so must give instructions on what to bring in advance.*

Suggested minimum materials:

- Dry pasta in a range of shapes
- Large coloured paper
- Glue
- Coloured pens

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	Get into small groups/pairs.	Groups students.
30	Create posters. Use available materials and create a poster demonstrating the process of active transport.	Gives guidance encouraging students to demonstrate an understanding on their poster.
10	<b>Peer feedback:</b> Put their completed posters on display and walk around the room reviewing their peers' posters. Note down two strengths and one wish per poster (One thing they wish the student had included/a target for improvement).	Monitors and offers feedback. Teacher can ask questions and allow students to demonstrate an understanding.
10	<b>Plenary:</b> Write a multiple-choice question involving active transport. Ask the question to other students in the room.	Take turns answering some of the questions. Ask own question(s) to the students.

## ANSWERS TO STUDENT TASK

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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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