

P.E Department

SUPPORTED EXPERIMENT

MASTERY TASKS

AIM

- To focus students on the topic of the day.
- To give students confidence through success.
- To encourage students to read up on the topic covered in the previous lesson.
- To review the previous lessons work in a fun and concise manner.

METHOD

- About 10 simple questions are asked by the teacher at the start of lessons.
- These questions test factual knowledge from the previous lesson or previous homework.
- Occasionally, questions are from earlier components of the course.
- Students write down the answers, these are read out and briefly discussed as required. Students self mark.



EVALUATION

According to student evaluations, this helps them to learn because:

- The quick test helps the class to settle and for individuals to be focused.
- Key knowledge was being tested which was helpful.
- The tests were easy and so gave confidence when they got important things right.

Staff felt that the use of mastery tasks:

- Settle the class. Merely saying, 'Question 1' at the start of a lesson means that students have paper and pen ready and are listening.
- The questions can be structured in such a way that the weakest students gain high marks (7,8,9 out of 10) and the strongest students can be invited to expand on a point, give examples etc. after the test. This promotes relevant discussions and deepens understanding.

WHAT NEXT?

- We have purchased a set of AS/A2 question cards.
- We will make our own sets of questions to be kept as a resource in the department.



EXAMPLE

AS Anatomy and Physiology. Lesson 3 of 'Respiratory System'

Work covered in lessons 1 and 2:

- Structure of respiratory system
- Mechanics of breathing
- Lung volumes, definitions and values.

mastery task

1. Name 3 of the structures that a molecule of oxygen would pass through from outside the body on the way to the lungs. (nasal cavity, oral cavity, pharynx, larynx, trachea, bronchus, bronchiole, alveoli.)
2. Which muscle is actively used during EXPIRATION AT REST? (none! – lead onto discussion)
3. What is special about alveoli that allows gaseous exchange to take place? (large surface area, one cell thick, moist lining)
4. What additional muscle is used during INSPIRATION during exercise? (sternocleidomastoid – open question for discussion in pairs – what other muscles are used?)
5. What happens to pressure in the lungs when the thoracic cavity volume INCREASES? (it DECREASES)
6. What is TIDAL VOLUME? (the volume of air breathed in OR out per breathing cycle.)
7. What happens to INSPIRATORY and EXPIRATORY RESERVE VOLUMES during exercise? (they DECREASE)
8. How many breaths per minute would be considered average? (12-15)
9. Why is it so difficult for you to count your own breathing rate when it is so easy to count your resting heart rate? (We can override the autonomic nervous system - discussion to follow)