**Unit 10 – Using Science in the Workplace**

**Name: Teacher:**

Assignment 3 – Titration of an Antacid

You will be working in groups of 2 to complete the practical assignment; however you *MUST* submit your own *INDIVIDUAL* written report.

**Unit abstract**

A real organisation should be used (or realistic case study recommended by the tutor) for the research in this unit to give learners an insight into the world of work that is awaiting them on completion of their studies.

This unit looks at the roles and responsibilities of the employee and the employer and the constraints, both statutory and voluntary, that are imposed on the organisation.

This unit links very closely to experience the learners may have of a scientific workplace. They need to understand how science-based organisations develop products and deliver services. If a learners are already employed in a scientific workplace they will ideally use their own employer for the unit and practical activity, taking into account any sensitive issues. If learners are not employed in a science organisation they will undertake this investigation as an individual or as part of the class group.

Before starting it is important that the organisation to be studied is researched to ensure that the relevant information is available. Owing to the wide variety of organisations that may be studied, the content has been designed to be contextualised to suit the learner’s situation or experience.

This unit enables learners to consider what it is like to work in the science industry. It is suitable for all learners who are interested in a career in science

**Learning outcomes**

**On completion of this unit a learner should**:

1 Understand how science-based organisations develop products and deliver services

2 Understand the requirements of science technicians in the organisation

3 Be able to carry out relevant scientific practical work

4 Know the constraints under which the organisation must operate.

**Scenario**

You have been asked to write an article for a leading newspaper to look at the

work carried out by some of the country’s top scientific companies. In your report

you have been asked to cast an unbiased view and make sure that all of your

research has come from reliable sources.

**Task 1 (P4)**

One of the many products that GSK manufacture are Antacids to aid in indigestion. You need to plan an investigation to evaluate the strengths of antacids and compare which is best at treating indigestion.

In your plan you will require;

Aim

Hypothesis

Identified Variables

Method

**Task 2 (P5)**

While carrying out the experiment it is important that you keep a record of your results. Your teacher will also monitor your ability to carry out this part of the assignment brief.

**Task 3 (M3)**

Analyse the results you have gathered.

Which antacid would be best for indigestion?

How do you know this?

Explain why these results would be useful for a company like GSK when it comes to analysing data on antacids.

**Task 4 (D3)**

Your experiment is very different from similar tests that would be carried out on an industrial scale. Explain what these differences would be and how the experiment would be different on an industrial scale compared to a laboratory experiment.

**Deadline:**