|  |  |
| --- | --- |
| Learner Portfolio | **Routes to** |
|  | |

**Making Progress**

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Year: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Office Use

Date received \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Making Progress | **Routes to** |
|  | |

Limit this document to 5 pages.

1. What does it take to make progress?

|  |
| --- |
| *Although problem-solving is the main subject of this part of the module, there are other skills, besides problem-solving, that you need in order to make progress in science and technology. Please comment here about those other skills - what are the most important ones as far as you are concerned? Have you done anything to develop them in yourself?* |
| Write your comments here (5%) |

2. Numbers

|  |
| --- |
| *It is important that you should reflect on the experience of doing the work which you are submitting in this portfolio. You should be able to comment on what (if anything) you found difficult and what the experience has taught you. In connection with the work on "How big is the Moon?" you should also comment on how you interacted with other students in your group to develop ideas and make decisions about what to do.* |
| Write your comments here (5%) |
| Check that you have included the following item in this portfolio:  Report on the size and distance of the Moon (20%) |

3. Understanding what is required

|  |
| --- |
| *This section is about the words (as opposed to the numbers and the diagrams) which surround a problem. It is crucial that, when you read a problem, you understand all the terms that are used and understand exactly what is being asked for.* |
| Check that you have included the following item in this portfolio:  Words: a definition exercise (5%) |

4. Problems

|  |
| --- |
| *Think about the why you are being asked to complete the work that you are submitting. You will be asked to comment in section 7 below.* |
| Check that you have included the following items in this portfolio:  An exercise in logic (10%)  Presenting the full solution to a problem (20%) |

5. Diagrams

|  |
| --- |
| *More often than not, diagrams are an important element in problem-solving. Sometimes, producing a diagram is the problem.* |
| Check that you have included the following items in this portfolio:  Diagram: an example from a problem sheet (10%)  Drawing the graphs of functions (5%)  A hodograph (5%) |

6. Checking answers: dimensional analysis

|  |
| --- |
| *Remembering to give the units correctly whenever you write down a number is an important discipline. Moreover, being aware of the units will help you to avoid making mistakes, and dimensional analysis will often show you if an equation is wrong.* |
| Check that you have included the following item in this portfolio:  Dimensional analysis exercise (10%) |

7. Final comments

|  |
| --- |
| *Please comment here about your experience of completing the work for sections 3, 4, 5 and 6 above. Do you understand the purposes of the work? What progress have you made as a result of the "Making Progress" part of this module?* |
| Write your comments here (5%) |

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_