## UK National Curriculum Maths Unit 1

## Level 1 Unit 1 - Mathematical processes and applications

1. The learner will participate in simple mathematical activities
1.1 I can use mathematics as an integral part of classroom activities [1]
1.2 I can represent my work with objects or pictures [2]
1.3 I can discuss what I am doing [3]
1.4 I can recognise and use a simple pattern or relationship [4]

## Level 2 Unit 1 - Mathematical processes and applications

## 1. The learner will initiate mathematical activities and use mathematical techniques when explaining outcomes

1.1 I can select the mathematics to use in some classroom activities [6]
1.2 I can discuss my work using mathematical language [7]
1.3 I can explain my work using symbols and simple diagrams to help [8]
1.4 I can explain why an answer is correct [9]

## Level 3 Unit 1 - Mathematical processes and applications

# 1. The learner will solve mathematical problems, organise their work and discuss and interpret mathematical rules 

1.1 I can try different approaches to solve problems [11]
1.2 I can organise my work and check results [12]
1.3 I can explain what I think when discussing mathematics [13]
1.4 I can use and interpret mathematical symbols and diagrams [14]
1.5 I can match specific examples to a general mathematical statement [15]

## Level 4 Unit 1 - Mathematical processes and applications

## 1. The learner will solve straightforward mathematical problems, independently

1.1 I can develop a strategy for solving practical mathematical problems [17]
1.2 I can solve problems with a calculator [18]
1.3 I can solve problems without a calculator [19]
1.4 I can check my results are reasonable by considering the context or the size of the numbers [20]
1.5 I can find patterns and relationships [21]
1.6 I can present information and results in a clear and organised way [22]
1.7 I can search for a solution to a problem by trying my own ideas [23]

## Level 5 Unit 1 - Mathematical processes and applications

## 1. The learner will use a range of mathematical techniques to

# explore mathematical situations, carrying out tasks and working on problems, arriving at safe solutions and presenting them in a way that is plausible to other people 

1.1 I can identify the mathematical aspects of a task [25]
1.2 I can obtain necessary information to solve a problem [26]
1.3 I can calculate accurately, using ICT where appropriate [27]
1.4 I can check my working and results to make sure they are sensible [28]
1.5 I can describe situations mathematically using symbols, words and diagrams [29]
1.6 I can draw simple conclusions explaining my reasoning [30]

## Level 6 Unit 1 - Mathematical processes and applications

## 1. The learner will carry out substantial mathematical projects, using analysis to solve complex problems communicating methods and outcomes and relating them to standard mathematical conventions

1.1 I can analyse a problem independently and systematically, breaking it down into smaller, more manageable tasks [32]
1.2 I can interpret and synthesise information presented in a variety of mathematical forms [33]
1.3 I can discuss mathematical information and relate derived information to the original context [34]
1.4 I can explain my mathematical diagrams orally and in writing [35]
1.5 I can justifify the outcomes to problems that are new to me [36]

## Level 7 Unit 1 - Mathematical processes and applications

# 1. The learner will explore mathematical models, including those represented in digital systems, demonstrating an understanding of mathematical form and its relationship with empirical data 

### 1.1 I can find invariance in one aspect of a problem when another changes [38]

1.2 I can set up a mathematical model in a digital systems [39]
1.3 I can progressively refine or extend the mathematics I use to present my work [40]
1.4 I can give reasons for my choice of mathematical presentation and explain key features [41]
1.5 I can justify my generalisations, arguments and solutions [42]
1.6 I can identify equivalence to different problems with similar structures [43]
1.7 I can identify the difference between mathematical explanation and experimental evidence [44]

## Level 8 Unit 1 - Mathematical processes and applications

## 1. The learner will consider the way they employ mathematics to solve problems and communicate ideas and as a result make further progress with their own learning

1.1 I can develop and follow alternative approaches [46]
1.2 I can compare and evaluate representations of a situation, introducing and using a range of mathematical techniques [47]
1.3 I can describe my own lines of enquiry when exploring mathematical tasks [48]
1.4 I can use mathematical symbols precisely and consistently to communicate meaning to different audiences in a sustained way throughout my work [49]
1.5 I can examine generalisations or solutions reached in an activity and make further progress in the activity as a result [50]
1.6 I can comment constructively on the reasoning and logic, the process employed and the results obtained [51]

## Level 9 Exceptional Performance Unit 1 - Mathematical processes and applications

## 1. The learner will reflect critically on their work in order to learn further and apply their wide range of mathematical knowledge to unfamiliar contexts using mathematical language and symbols

1.1 I can critically evaluate the strategies I adopt to investigate pure mathematics [53]
1.2 I can critically evaluate the strategies I adopt to solve practical mathematical problems [54]
1.3 I can explain why different strategies were used, considering the elegance and efficiency of alternative lines of enquiry or procedures [55]

### 1.4 I can apply the mathematics I know in a wide range of familiar and unfamiliar contexts [56]

1.5 I can use mathematical language and symbols effectively in presenting a convincing,
reasoned argument [57]
1.6 I can include mathematical justifications, distinguishing between evidence and proof in mathematical reports [58]
1.7 I can explain my solutions to problems involving a number of features or variables [59]

Source URL: https://theingots.org/community/NCU1MA

## Links

[1] https://theingots.org/community/ncl1u1maux\#1.1
[2] https://theingots.org/community/ncl1u1maux\#1.2
[3] https://theingots.org/community/ncl1u1maux\#1.3
[4] https://theingots.org/community/ncllu1maux \#1.4
[5] https://theingots.org/community/ncllulmaui
[6] https://theingots.org/community/ncl2u1maux\#1.1
[7] https://theingots.org/community/ncl2u1maux\#1.2
[8] https://theingots.org/community/ncl2u1maux\#1.3
[9] https://theingots.org/community/ncl2u1maux\#1.4
[10] https://theingots.org/community/ncl2u1maui
[11] https://theingots.org/community/ncl3u1maux\#1.1
[12] https://theingots.org/community/ncl3u1maux\#1.2
[13] https://theingots.org/community/ncl3u1maux\#1.3
[14] https://theingots.org/community/ncl3u1maux\#1.4

[^0][15] https://theingots.org/community/ncl3u1maux\#1.5
[16] https://theingots.org/community/ncl3ulmaui
[17] https://theingots.org/community/ncl4ulmaux\#1.1
[18] https://theingots.org/community/ncl4ulmaux\#1.2
[19] https://theingots.org/community/ncl4ulmaux\#1.3
[20] https://theingots.org/community/ncl4ulmaux\#1.4
[21] https://theingots.org/community/ncl4ulmaux\#1.5
[22] https://theingots.org/community/ncl4u1maux\#1.6
[23] https://theingots.org/community/ncl4u1maux\#1.7
[24] https://theingots.org/community/ncl4u1maui
[25] https://theingots.org/community/ncl5u1maux\#1.1
[26] https://theingots.org/community/ncl5u1maux\#1.2
[27] https://theingots.org/community/ncl5u1maux\#1.3
[28] https://theingots.org/community/ncl5u1maux\#1.4
[29] https://theingots.org/community/ncl5u1maux \#1.5
[30] https://theingots.org/community/ncl5ulmaux\#1.6
[31] https://theingots.org/community/ncl5ulmaui
[32] https://theingots.org/community/ncl6u1maux\#1.1
[33] https://theingots.org/community/ncl6u1maux\#1.2
[34] https://theingots.org/community/ncl6u1maux\#1.3
[35] https://theingots.org/community/ncl6u1maux\#1.4
[36] https://theingots.org/community/ncl6u1maux\#1.5
[37] https://theingots.org/community/ncl6u1maui
[38] https://theingots.org/community/ncl7u1maux\#1.1
[39] https://theingots.org/community/ncl7u1maux\#1.2
[40] https://theingots.org/community/ncl7u1maux\#1.3
[41] https://theingots.org/community/ncl7u1maux\#1.4
[42] https://theingots.org/community/ncl7u1maux\#1.5
[43] https://theingots.org/community/ncl7u1maux\#1.6
[44] https://theingots.org/community/ncl7u1maux\#1.7
[45] https://theingots.org/community/ncl7u1maui
[46] https://theingots.org/community/ncl8u1maux\#1.1
[47] https://theingots.org/community/ncl8u1maux\#1.2
[48] https://theingots.org/community/ncl8u1maux\#1.3
[49] https://theingots.org/community/ncl8u1maux\#1.4
[50] https://theingots.org/community/ncl8u1maux\#1.5
[51] https://theingots.org/community/ncl8u1maux\#1.6
[52] https://theingots.org/community/ncl8ulmaui
[53] https://theingots.org/community/ncl9u1maux\#1.1
[54] https://theingots.org/community/ncl9u1maux\#1.2
[55] https://theingots.org/community/ncl9u1maux\#1.3
[56] https://theingots.org/community/ncl9u1maux\#1.4
[57] https://theingots.org/community/ncl9u1maux\#1.5
[58] https://theingots.org/community/ncl9u1maux\#1.6
[59] https://theingots.org/community/ncl9u1maux\#1.7
[60] https://theingots.org/community/ncl9u1maui


[^0]:    (function(i,s,o,g,r,a,m)\{i['GoogleAnalyticsObject']=r;i[r]=i[r]||function()\{(i[r].q=i[r].q||[]).push(arguments)\}, i[r].I=1*new Date();a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBPeepapfo \})(window,document,'script','//www.google-analytics.com/analytics.js','ga'); ga('create', 'UA-46896377-2', 'auto'); ga('send',

