

**The Tempest Project National Curriculum Objectives**

This 6-week project covers the following National Curriculum objectives

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| **Maths** | **Area of Learning** | **Y3 Objectives** | **Y4 Objectives** | **Y5 Objectives** | **Y6 Objectives** |
|  | Perimeter | measure the perimeter of simple 2-D shapes | measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres | recognise that shapes with the same areas can have different perimeters and vice versa |
| Roman numerals |  | read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value | read Roman numerals to 1,000 (M) and recognise years written in Roman numerals |
| Multiplying | recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | recall multiplication and division facts for multiplication tables up to 12 × 12 | revision of all multiplication tables | multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication |
| Multiplying | write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods | multiply two-digit and three-digit numbers by a one-digit number using formal written layout | multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers | multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication |
| Dividing | write and calculate mathematical statements for multiplication and division using the multiplication tables that they know | find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths | divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places |
| Rounding | Round any number to the nearest 10, 100 or 1,000Order and compare numbers beyond 1,000 | round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 | round any whole number to a required degree of accuracy |
| Visual problem solving | solve number problems and practical problems involving these ideas. | general problem solving  |
| Addition and Subtraction  | add numbers with up to 3 digits, using formal written methods of columnar addition | add numbers with up to 4 digits using the formal written methods of columnar addition  | add whole numbers with more than 4 digits, including using formal written methods (columnar addition) |
| Statistics | interpret tablessolve one-step and two-step questions [for example ‘How many more?’ and ‘How many fewer?’] using information presented in and tables | solve comparison, sum and difference problems using information tables | solve comparison, sum and difference problems using information presented in a line graph | interpret line graphs and use these to solve problemscalculate and interpret the mean as an average |
| Coordinates  |  | describe positions on a 2-D grid as coordinates in the first quadrant |  | describe positions on the full coordinate grid (all four quadrants) |
| Fractions | add and subtract fractions with the same denominator within one whole [for example, 7 5 + 7 1 = 7 6 ] | add and subtract fractions with the same denominator | Use common factors to simplify fractions; use common multiples to express fractions in the same denomination  |
| Measure | compare durations of events | solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days | solve problems involving converting between units of time |
| **Literacy** | **Area of Learning** | **Y3 Objectives** | **Y4 Objectives** | **Y5 Objectives** | **Y6 Objectives** |
| **WRITING**  | CompositionVocabulary and grammar Handwriting | To use simple organisational devicesDiscuss writing similar to that which they are planning to write in order to learn from its structure, vocabulary and grammarDiscuss and Record ideaDraft and write by composing and rehearsing sentences orally (including dialogue)Organise paragraphs around a theme in narratives, creating settings, characters and plots Read aloud their own narrativesUse diagonal and horizontal strokes needed to join letters | To use organisational and presentational devices to structure text and guide the readerSelect appropriate grammar and vocabulary understanding how such choices can change and enhance meaningIn writing, consider how authors have developed characters and settings in what pupils have read, listened to or seen performedDescribe settings, characters and atmosphere and integrate dialogue to convey character and advance actionWrite legibly, fluently and with increasing speed |
| **READING**  | Word readingComprehension | Listen to and discuss a wide range of fiction, poetry, plays and non fiction bookRead for a range of purposesDiscuss words and phrases that capture the reader’s imagination and interestDraw inferences such as character’s feelings, thoughts and motives from their actionsIdentify main ideas | Apply their growing knowledge of root words, prefixes and suffixes to read aloud and to understand the meaning of new words that they meetUnderstand what they have read by; drawing inferences and justifying with evidence, identifying how language, structure and presentation contribute to meaning Summarising main ideas drawn from more than one paragraph, identifying key details that support the main ideasUnderstanding what they have read by exploring the meaning of words in contextPredicting what might happen from details stated and implied. |
| **GRAMMAR, PUNCTUATION AND LANGUAGE** |  | Nouns | Expanded noun phrases |
| Verbs | Modal verbs |
| Verbs-Passive and Active |
| Fronted adverbials | Relative clauses |
| Conjunctions | Subordinating conjunctions |
| Pronouns  | Pronouns  |
| Similies and Metaphors | Similies and Metaphors |
| Bullet points | Bullet points |
| Semi Colons | Semi Colons |
| Using and punctuating direct speech | Speech marks |
| Commas | Hyphens and Dashes |
| Possessive apostrophes | Apostrophes in contractions |
| **Science** | **Area of Learning** | **Y3 Objectives** | **Y4 Objectives** | **Y5 Objectives** | **Y6 Objectives** |
|   | **Biology** | **Plants** |  | **Living things and their habitats: Life cycles** |  |
| identify and describe the functions of different parts of flowering plants: roots,stem/trunk, leaves and flowersexplore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plantinvestigate the way in which water is transported within plantsexplore the part that flowers play in the life cycle of flowering plants, includingpollination, seed formation and seed dispersal. | describe the differences in the life cycles of a mammal, an amphibian, an insect anda birddescribe the life process of reproduction in some plants and animals. |
| **Working scientifically** | asking relevant questions and using different types of scientific enquiries to answer them setting up simple practical enquiries, comparative and fair tests making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers gathering, recording, classifying and presenting data in a variety of ways to help in answering questions recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions identifying differences, similarities or changes related to simple scientific ideas and processes using straightforward scientific evidence to answer questions or to support their findings.  | planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments.  |
| **Design Technology** | **Key Stage 2** |
|  | Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. When designing and making, pupils should be taught to: **Design** ▪  use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups ▪  generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **Make** ▪  select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately ▪  select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities **Evaluate** ▪  investigate and analyse a range of existing products ▪  evaluate their ideas and products against their own design criteria and consider the views of others to improve their work ▪  understand how key events and individuals in design and technology have helped shape the world  |
| **Art and Design** | **Key Stage 2** |
|  | to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] to learn about great artists, architects and designers in history.  |