

Puzzlewood

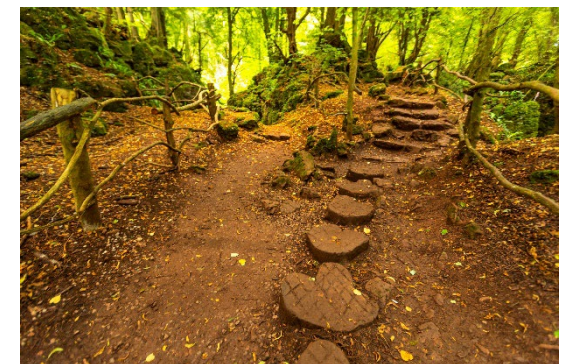
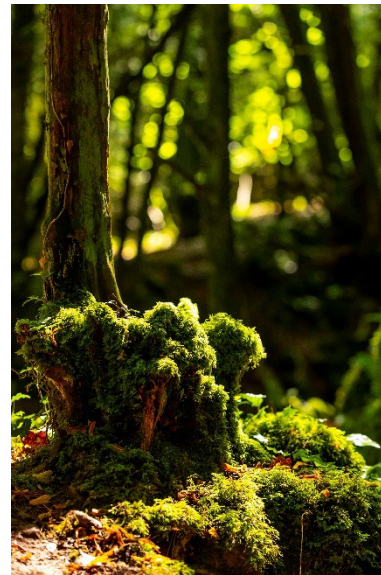
A Magical Woodland in the Forest of Dean

Outdoor Maths EYFS/KS1

Puzzlewood is a designated ancient woodland. It is a special, important and protected place. The woodland is so old it has developed intricate communities of plants, animals and fungi.

Puzzlewood is a unique environment for allowing children the opportunity to learn and practise maths knowledge and skills outdoors as well as providing a huge range of activities that allow children to come together and use their problem solving skills.

We strongly recommend that you visit the site before you visit, as there are so many opportunities for a creative curriculum.



National Curriculum Programs of Study:

ELG: Listening, Attention and Understanding

Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions; Make comments about what they have heard and ask questions to clarify their understanding; Hold conversation when engaged in back-and-forth exchanges with their teacher and peers

ELG: Speaking

Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher.

ELG: Managing Self

Be confident to try new activities and show independence, resilience and perseverance in the face of challenge; Explain the reasons for rules, know right from wrong and try to behave accordingly

ELG: Building Relationships

Work and play cooperatively and take turns with others

ELG: Gross Motor Skills

Negotiate space and obstacles safely, with consideration for themselves and others; Demonstrate strength, balance and coordination when playing

ELG: Number

Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5;

ELG: Numerical Patterns

Verbally count beyond 20, recognising the pattern of the counting system; Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Extension into KS1:

count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number; count, read and write numbers to 100 in numerals;

count in multiples of 2s, 5s and 10s; given a number, identify 1 more and 1 less; count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward;

identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least;

read, write and interpret mathematical statements involving addition (+); subtraction (-) and equals (=) signs; compare and order numbers from 0 up to 100; use <, > and = signs;

represent and use number bonds and related subtraction facts within 20;

compare, describe and solve practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/half];

measure and begin to record the following; describe position, directions and movements, including whole, half, quarter and three-quarter turns.

Suggested Learning Activities

During your visit:

You are requested to stay on the marked paths in order to preserve this important ancient site.

You are welcome to use natural objects found on the ground but please don't pick leaves or flowers.

Practise subitising (recognize quantities without counting) skills throughout the day using flora and fauna in the wood itself and our farm animals too.

Count found natural objects

Hold a nature hunt – Can you find me two stones, one feather, four leaves?

Hold a number hunt – hide number cards for numbers 1 to 10/20 around the wood*. Can the children find them and put in order from smallest to largest/ largest to smallest?

Extend this activity by removing a card and playing 'What's the missing number?'

*Please let us know if you would like staff to hide these for you at the start of your visit.

Make a natural Five or Tens frame out of sticks or string. Use to count natural, found objects and practice number bonds to 5 and 10.

Make natural transient art using a specific number of objects. Pupils can work alone or in pairs.

As you walk through the woodland describe and discuss what you can see using mathematical language e.g. over, through, next to, between, around etc.

Collect 5 different found objects and order in length from shortest to longest.

Use found objects to make odd and even and double amounts

Compare quantities of natural objects e.g. leaves and stone using the phrases greater than and less than, one more and one less

Make nature patterns using found objects e.g. stone, leaf, stone , leaf etc. then sort objects by size, colour or texture.

Make sound patterns using the musical play section in the orchard.

Children work in pairs in the willow maze. One child closes their eyes and the other gives them instructions to follow e.g. take three steps forward, turn left, now four steps forward.

KS1 maths:

Use pre-cut bamboo sticks in different lengths, 10cm, 50cm, 1m to find objects on site that are longer or shorter.

Bring measuring tapes, metre rulers and trundle wheels to give pupils practical experience of measurement. How long is this path? Estimate then measure.

Use the willow maze to consolidate learning around position and movement e.g right turn, left turn, clockwise and anti-clockwise.

Use our farm animals to provide data for Tally charts. These can then be used to complete bar charts and other data handling activities back at school.

Collect found objects and group into 2s, 5s, 10s for consolidation of counting in multiples of 2, 5 and 10.

Create 2 Tens frames using sticks or string. Use 2 different sets of found objects e.g. leaves and stones to practise and consolidate number bonds to 20.

Use sticks to make greater than, less than (<>) and equal symbols for children to use found natural objects to create their own calculations.

Look for and photograph, using iPads, symmetry in nature. Look at flowers, leaves and rock formations.

