NUCLEAR
WILD FOREST
SCHOOLS

WILD FOREST

KS1 LEARNING RESOURCES

MUDDY OBSTACLE CHALLENGE

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Council for
Learning Outside the Classroom

NUCLEAR WILD FOREST SCHOOLS

NAME :

MUDDY OBSTACLE CHALLENGE

Let's learn about our bodies, exercise and the muddy world around us.

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Let's have a think about teaming up and estimating.

1. COUNTING OBSTACLES

Look at the obstacle course grid map on the previous page.

Count how many obstacles you can see.

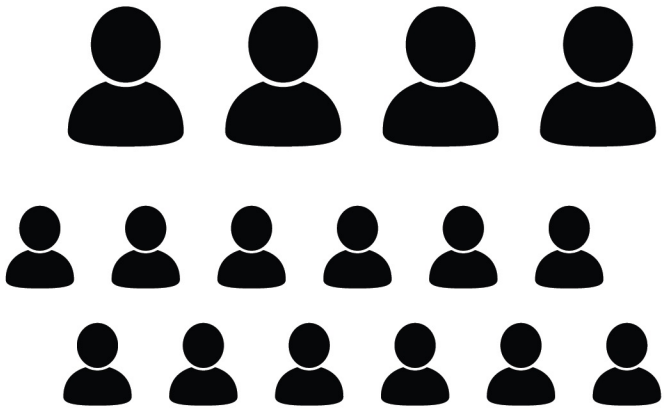
Can you **estimate** how many obstacles Wild Forest has in total?

2. TEAMWORK PLANNING

There are 12 children and 4 grown-ups. So they can take turns on the obstacles, can you split the children **equally** into 4 small teams and then draw around the groups?

How many are there in each team? .....

Are there enough grown-ups to look after each team of children? .....



3. MEASURING AND ESTIMATING DISTANCES

Walk 10 steps in the classroom - Approximately how many metres did you go?

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Now it's time to look at some mapping activities and some maths problems.

4. MUDDY OBSTACLE WORD PROBLEMS

If it takes 2 minutes to go over an obstacle, how long will 3 obstacles ta..... to go over?

If 6 children share 2 obstacles, how many children will go on each obstacle? .....

If there are 3 mud pits, and you jump over 1 pit at a time, how many jumps do you need to do?

.....

5. MAP FUN & SIMPLE GRID COORDINATES

Look at the obstacle grid map again.

- The start of the course is at L1.
- A quarter pipe obstacle is at I5.
- The water pontoons are at K7.

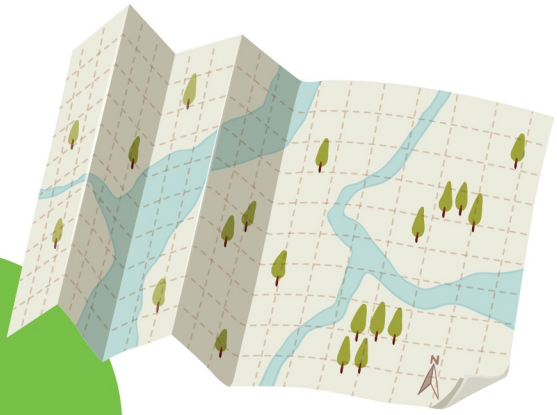
Questions:

Can you point to the water pontoons on the grid?

Draw a line from the water pontoons to the obstacle at G8.

Are the water pontoons up, down, left, or right from I7?

Draw your own obstacle in a square and note its grid position.



TEACHER NOTES

1. Counting Obstacles
- 8 obstacles
- Estimations: Wild forest has 45 obstacles in total!

Curriculum Links:
Maths – Number: Counting objects, estimating quantities
Maths – Reasoning: Talk about choices and explain answers

2. Teamwork Planning
- 3 children in each group
- There are 4 adults, enough for 4 teams of 3.

Curriculum Links:
Maths – Addition & Subtraction: Simple grouping and sharing
PSHE: Teamwork, collaboration

3. Measuring and Estimating Distances
- 10 classroom steps ≈ 5–10 m (depending on child)

Curriculum Links:
Maths – Measurement: Length, counting steps, estimating distance

4. Muddy Obstacle Word Problems
- 2 minutes × 3 obstacles = 6 minutes
- 6 children ÷ 2 obstacles = 3 children per obstacle
- 3 mud pits × 1 pit per jump = 3 jumps

Curriculum Links:
Maths – Number: Simple addition, subtraction, and division
Problem Solving: Use pictures, counters, or drawings to help

5. Map Fun & Simple Grid Coordinates
- The correct square is K7
- The drawn line will go from water pontoons to the climbing wall at G8
- Right.

Teacher Tip:
Use a large floor grid or playground chalk grid first, then move to paper to support physical learning and understanding.

Curriculum Links (KS1):
Maths – Geometry (Position & Direction):
Describe position using simple grid references
Use positional language (up, down, left, right)
Maths – Reasoning:
Explain thinking using mathematical vocabulary

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Hello Mud Warriors! Before your visit to the Nuclear Wild Forest obstacle activity centre, let's explore some fun activities to help us get ready! First of all, lets look at some of the obstacles you might come across...

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Let's explore some quick activities to help us get ready! We will learn a bit about our bodies, exercise and the muddy world around us.

1. MOVING OUR BODIES

- Use this space to draw yourself doing one activity you might do at the obstacle course: running, jumping, crawling, or climbing.
- Can you point to which parts of your body you use (arms, legs, feet, hands)?
- Try stretching your arms and legs – which muscles can you feel?

2. HOW FAST CAN YOUR HEART BEAT?

- Find your pulse on your wrist or neck.
- How many beats you feel in 10 seconds? . . . . . .
- Multiply this number by 6 to get your beats per minute . . . . . x 6 = ... BPM

Now run on the spot for 30 seconds!

- Count your pulse again, how many beats you feel in 10 seconds now? . . . . . .
- Multiply this number by 6 . . . . . x 6 = ... BPM

?

Discuss in your group

Do you know why your heart beats faster after exercise?

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Let's have a look at how we balance, what a wonderful thing mud is and what we might eat and drink to make sure our body is giving us lots of energy.

3. BALANCING FUN

- Walk along a straight line on the floor (like a balance beam). Try with arms out wide, then arms down! Is it more difficult one way?
- Can you hop on one foot? Crawl under a chair?
- Which ways help you keep your balance best?

4. MUD AND NATURE

- Go outdoors and hunt for an area of mud. Can you see any insects, animals, or plants living in it?
- Draw a picture of what might live in the mud.
- Talk about why muddy places are good for animals and plants.

What is mud?

5. EATING AND DRINKING FOR ENERGY

- Make a list of foods and drinks that give you energy for playing outside.

TEACHER NOTES

1. Moving Our Bodies
Body parts: arms, legs, hands, feet, head, shoulders, back.
Muscles are small and simple to discuss: “arms help us climb, legs help us run.”

Curriculum Links:
Science – Animals, including humans: Notice and name body parts.
PE: Use running, jumping, and balancing movements.

2. How Fast Can Your Heart Beat?
Resting heart rate: usually around 70–110 bpm for young children.
Heart beats faster after exercise – link to oxygen and energy for muscles.
Use simple tables for recording (student-friendly).

Curriculum Links:
Science – Animals, including humans: Notice changes in your body during activity.
Maths: Count and compare numbers.

3. Balancing Fun
Balance depends on: wide stance, arms out, focus.
Observe differences between slow and fast movements.
Curriculum Links:
PE: Develop balance, coordination and agility.
Science – Forces (simple): Notice how your body moves against gravity.

4. Mud and Nature
Common mud dwellers: worms, slugs, insects, small frogs.
Plants: grass, reeds, moss.
Discuss why mud is wet, soft, and important for animals.

Curriculum Links:
Science – Living things and their habitats: Explore plants and animals in their habitats.
Geography/Science: Talk about soil and mud.

5. Eating and Drinking for Energy
Healthy foods: fruit, vegetables, sandwiches, cheese, yogurt.
Drinks: water is best.
Emphasize moderation, variety, and energy for play.

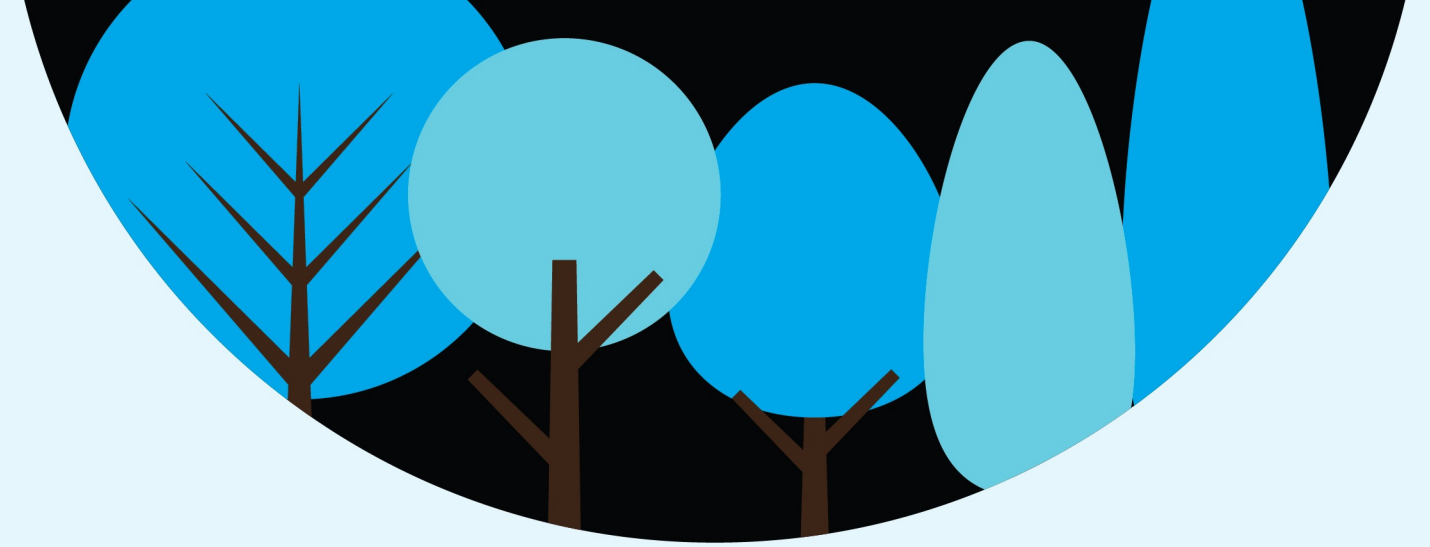
Curriculum Links:
Science – Animals, including humans: Learn about healthy eating and keeping active.
PSHE: Understand how to stay healthy.

NUCLEAR ADVENTURES SCHOOLS

NUCLEAR ADVENTURES

KS1 LEARNING RESOURCES

HIGH ROPES CHALLENGE



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Hello Adventurers! Before your visit to the high ropes course, let's explore some fun activities to help us get ready! First of all, lets look at some of the things you might come across at Nuclear Adventures...

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Let's have a look at different forces and think about how we can see them in action in everyday life.

1. PUSH OR PULL?

- Look at each action below. Discuss what's happening and tick if the action is a pushing or pulling one.

☐ PUSH
☐ PULL

☐ PUSH
☐ PULL

☐ PUSH
☐ PULL

2. EXPERIMENT - GOING DOWN!

- Drop two objects (a pencil and a ball).
- Which one got to the ground first?
- Why do you think they go down?

Do you know why heavier things drop faster?

3. EXPERIMENT - WHAT MAKES THINGS SLOW OR FAST?

When you move through the air or slide on a rope, you can go fast or slow. Carry out this quick science experiment to see what effect the shape of an item has on how it falls.

PAPER DROP TEST

Drop these 2 items from the same height simultaneously:

- *A flat piece of paper*
- *A scrunched-up ball of paper*

Which fell faster?

Which took longer?

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OK, let's look at the safety equipment we'll see at Nuclear Adventures. What safety equipment do you use in your life and why?

4. SAFETY ON THE HIGH ROPES COURSE

At the activity centre, special equipment keeps you safe. See which of these items you know. Draw a line from the item to it's name.

Carabiners
To keep you safely attached to the course.
Harness
To attach you to the carabiners safely.
Gloves
Optional, but provide extra grip.

5. DESIGN YOUR OWN HIGH ROPES COURSE!

On the blank sheet, take some time to draw your very own mini high ropes adventure!

Think about all the crossings you'd like to add to your course. You could think about adding some of these crossings:

- Something to crawl through
- A rope bridge
- Something you climb
- Something you slide down
- A ladder

Or just think up something crazy for your course!

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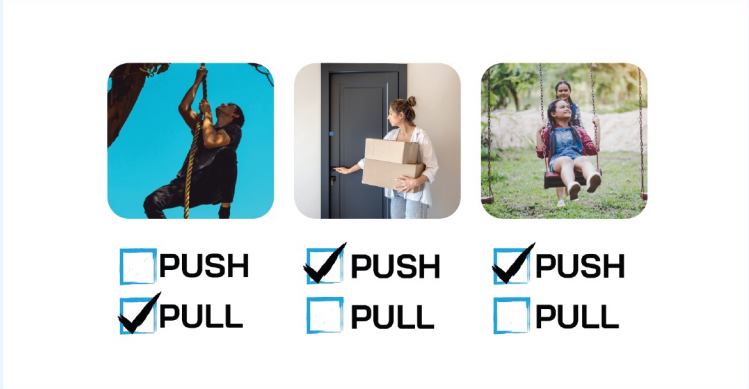
5. DESIGN YOUR OWN HIGH ROPES COURSE

TEACHER NOTES

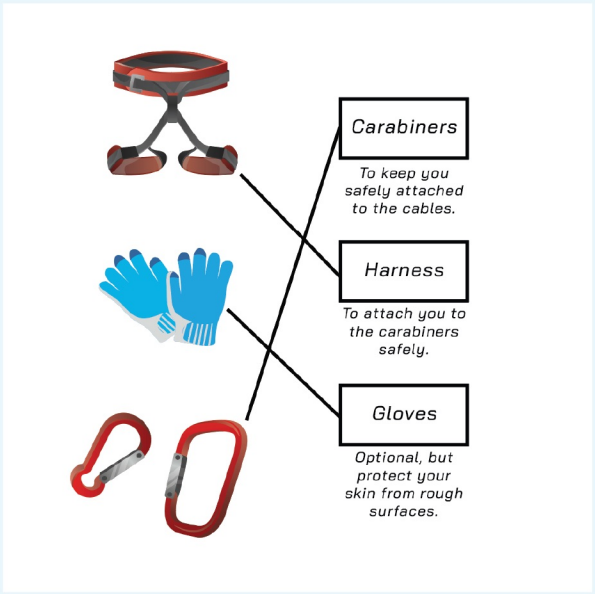
1. Push or Pull?
Curriculum Link:
Describe pushes and pulls and how they make things move.



2. Going Down – What Happens?
Curriculum Link:
Observe how objects fall and talk about what they notice.
Talk about gravity, and they may notice that the heavier item falls faster.

3. What Makes Things Slow or Fast?
Curriculum Link:
Perform simple tests and observe what happens.
Compare movement – fast and slow.

4. Safety on the High Ropes
Curriculum Link:
Identify and name everyday equipment and talk about how it helps us.



5. Design Your Own High Ropes Course!
Curriculum Link:
Use drawings to describe ideas.

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Let's get creative with our writing and write about what you might experience at the high ropes course

ACTIVITY 1: ADVENTURE WORDS

Learn new words to describe the high ropes adventure.

Look at pictures of the high ropes course and think about words to describe:

How it might **feel** (e.g., "scary," "exciting")

What you might **see** (e.g., "trees," "sky")

What you might **hear** (e.g., "wind," "creak")

Draw a picture below and write at least one word to match it.

MY ADVENTURE WORDS

FEEL -

SEE -

HEAR -

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Let's get a bit more creative with our writing and write or draw a short story about your exciting adventure.

ACTIVITY 2:
ADVENTURE STORY STARTER

Time to tell a story about being on the high ropes.

Look at the below story starter and draw or write what happens next.
(Think about words you've used in the last activity)

"My heart went thump-thump as I reached out to grab the cold, prickly rope. I looked down at the ground and..."

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Lets pretend we're high ropes helpers!

ACTIVITY 3: SAFETY RULES POSTER

Practise writing simple instructions and safety tips.

Imagine you are a high ropes helper - help by making a safety poster.

Include:

- A title (an example could be "Stay Safe!")
- 2–3 safety rules, for example: "Hold the rope" or "Wear your harness")
- Draw pictures to help people understand.

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Hopefully you had an amazing time at Nuclear Adventures, how about you write a review about your adventure?

ACTIVITY 4:
MY HIGH ROPES REVIEW

Now we're going to practice writing simple sentences to describe your opinions.

Think about the trip. Can you draw a picture of your favourite part of the ropes course in the space below? Write 1–2 sentences about what you liked and what you found tricky or exciting.

TEACHER NOTES

Activity 1: Adventure Words
Curriculum Links:
Vocabulary Development: Learn and use new words to describe feelings, places, and sounds (National Curriculum: English KS1).
Writing: Begin to use simple words in sentences.

Activity 2: Adventure Story Starter
Curriculum Links:
Writing – Composition: Sequence ideas and sentences to tell a story.
Vocabulary: Use descriptive words to describe feelings and actions.

Activity 3: Safety Rules Poster
Curriculum Links:
Writing for Purpose: Write instructions for others.
SPaG: Use capital letters, full stops, and simple verbs.

Activity 4: My High Ropes Review
Curriculum Links:
Writing – Composition: Express ideas clearly in simple sentences.
SPaG: Use capital letters, full stops, and finger spaces.