

# 10 OUTDOOR STEM CHALLENGES

TASK CARDS



Cut out and laminate the task cards so they can be used time and time again. These cards are great for team building STEM activities, especially at the start or end of the school year.

## STEM CHALLENGES

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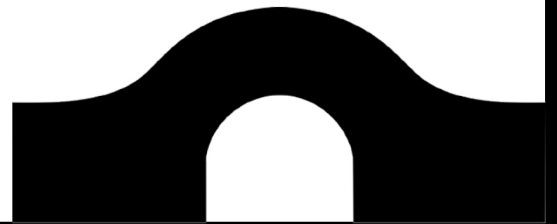
#### Equipment needed:

- Natural Materials
- String

### CHALLENGE 1

#### Challenge

Make a bridge that can go across a 30cm gap using only materials you can find outside and string.



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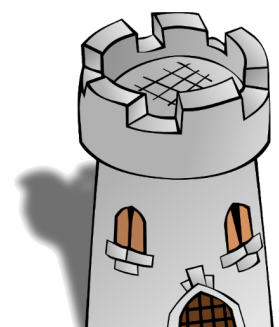
#### Equipment needed:

- Materials you can find outside.

### CHALLENGE 2

#### Challenge

Make the tallest freestanding tower using only materials you can find outside.



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#### Equipment needed:

- Natural Materials
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### CHALLENGE 3

#### Challenge

Make something that can float on water holding a rock the size of a golf ball using only natural materials and string.



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#### Equipment needed:

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### CHALLENGE 4

#### Challenge

Make something that when dropped from shoulder height will fall as slowly as possible using only materials you can find outside.



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#### CHALLENGE 5

##### Equipment needed:

- Natural Materials

##### Challenge

- Make a bird's nest that can sit in a tree or bush holding 3 rocks the size of golf balls.



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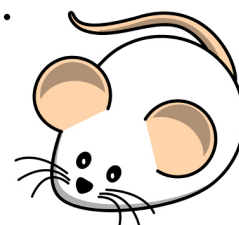
#### CHALLENGE 6

##### Equipment needed:

- Materials you can find outside.
- String

##### Challenge

Sometimes animals need to be caught for scientific purposes. Design and build a trap for small mammals (mice etc.) which will capture them without harming them.



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##### Equipment needed:

- Natural Materials
- Materials in and around your school

#### CHALLENGE 7

##### Challenge

Imagine you're stranded on a desert island and are desperate for water. Design and build a water collector using only materials you can find around your school. Extra Challenge: Use only natural materials and a water bottle.



#### OUTDOOR STEM CHALLENGES

##### Equipment needed:

- Materials you can find outside.
- String

#### CHALLENGE 8

##### Challenge

Make a platform with four legs that's able to hold as much weight as possible using only natural materials and string.



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#### CHALLENGE 9

##### Equipment needed:

- Natural Materials

##### Challenge

Make a full sized or mini waterproof shelter using only natural materials. To test your full-sized shelter, stand inside and get somebody to throw a bucket of water over it. To test your mini shelter put a bit of cotton wool or tissue in the shelter and water it using a watering can. You can then see if they wool or tissue gets wet.



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#### CHALLENGE 10

##### Equipment needed:

- Materials you can find outside.
- String

##### Challenge

Design and build a mansion for a mini-beast using only natural materials and string. Make it as fancy as you possibly can. They deserve nothing but the best!

