

Key Stage 3 – Transport Worksheet



**Translink
Eco-Schools
Travel
Challenge**

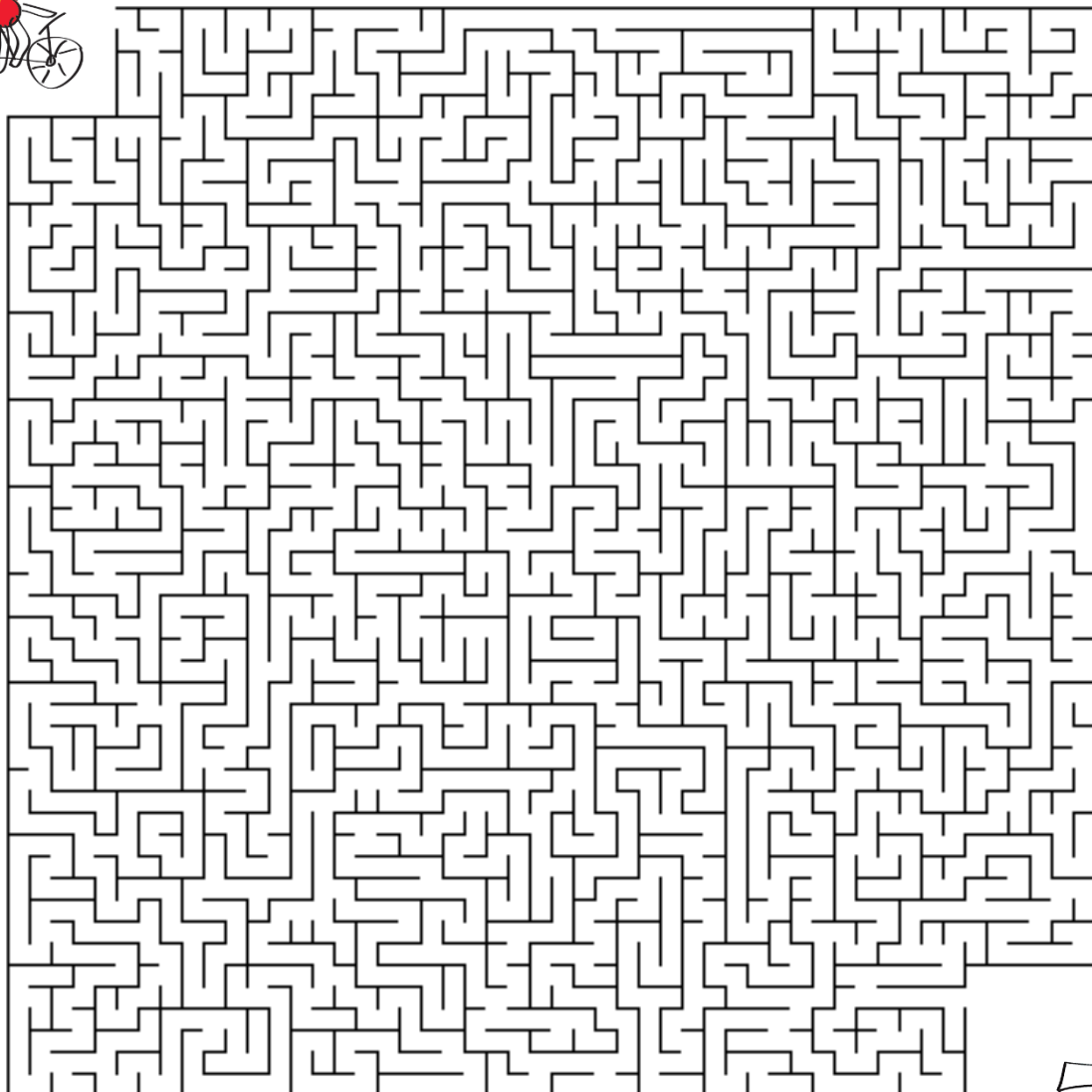
Brain teaser #1- Catching the bus

Every morning when Andy, Brenda, and Cory line up at the bus stop, they can choose between two buses - one pink Metro bus and one blue Ulsterbus.

1. Whenever Andy takes the pink Metro bus, Brenda and Cory take the same bus as each other.
2. If Brenda takes the pink Metro bus, Andy and Cory take different buses from each other.
3. If Cory takes the blue Ulsterbus, Andy takes the same bus as Brenda.

Which of the three pupils always takes the same bus? What colour is it?

Help Patrick find his way through the maze to school.



Brain Teaser #2 – Missing bus pass.

Jimmy can't remember where he left his bus pass - in a drawer, in his homework diary, in his blazer pocket, or in his locker. If only one of the following sentences is true, where is Jimmy's bus pass?

1. The bus pass is in a drawer
2. The bus pass is in his homework diary or in his locker
3. The bus pass is in a drawer or in his blazer pocket
4. The bus pass is not in his homework diary



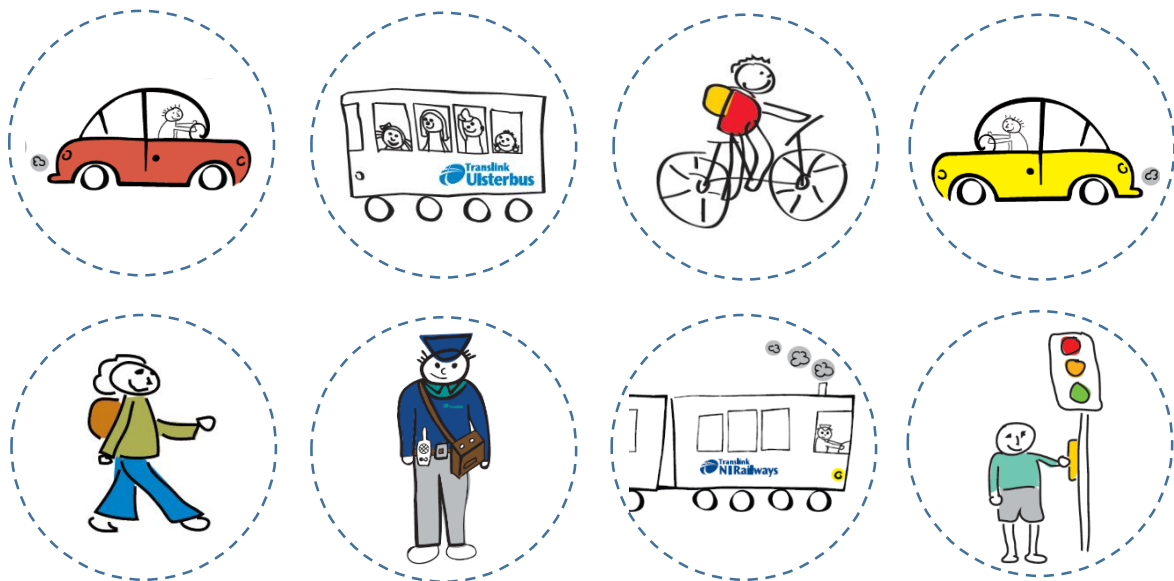
Design a #Smartmovers board game.

Design a board game based on sustainable transport. You will need some paper and pens/colouring pencils and perhaps dice to complete this task. Think about what is good about transport and might give a player a bonus, and what is bad and might lose you points or places. For example –

Good: 'You cycle to school – move on 5 places'

Bad: 'You sleep in and have to take a lift to school – fall back 3 places'

Maybe working in pairs or small groups will help you come up with a design and ideas. Below are some tokens/counter pieces you can cut out and use if you wish. Have fun!



Can you solve these anagrams and make a sentence about sustainable transport using the answers?



1. chalking owl soot
2. inventor men
3. thoroughly food ear
4. uncoiled troupe
5. joiners cat con

Anagram Answers: 1. Walking to school, 2. Environment, 3. Good for your health, 4. Reduce pollution, 5. Car congestion.

If sentence #1 is true, then sentence #3 is also true, but only one sentence can be true, so both #1 and #3 are false - the bus pass is not in a drawer or in his blazer pocket. That leaves the homework diary and the locker, so let's look at sentences #2 and #4. If sentence #2 is true, then sentence #4 is false. That would leave us with just 1 true sentence, but is the bus pass in his homework diary or in his locker? We know that sentence #4 is false, so the bus pass must be in his homework diary.

Brain Teaser #2 Answer The bus pass is in Jimmy's homework diary.

Now go back to the information in the problem and eliminate the impossible cases. Number 2 makes case A and E impossible, so cross them out. Number 3 makes case B impossible, so cross that out. That leaves only cases D, C and F. Andy takes the blue Ulsterbus in all of these.

	Andy	Brenda	Cory
A	pink	pink	pink
B	pink	blue	blue
C	blue	blue	blue
D	blue	pink	pink
E	blue	pink	blue
F	blue	blue	pink

STRATEGY: Make a table that shows the choices for Andy. He can either take pink or blue buses. If he takes pink, there are two options for Brenda and Cory. If he takes blue, there are four choices for Brenda and Cory.

Brain teaser #1 Answer Andy always takes the blue Ulsterbus.