



This term we are going to be looking at **TRANSPORT AROUND THE WORLD!** There are going to be some great quick builds from helicopters and gondolas to rickshaws and cable cars!

During the second half of the club, the children like to join worlds on the router provided to work in teams on a long build project. This build may span several weeks so it is important that the children get the same tablet each week. Although we have suggested some long build ideas for each week, feel free to jiggle things around or even come up with your own.

The main thing is that the quick builds are done as described on the correct week as this forms the basis of the inter school competition where your school can earn points for the national leaderboard.

The Quick Builds

The first half of the club is usually taken up with the quick build. The **Fabretta/Jay** videos can be used directly from **Youtube** each week or downloaded from **Dropbox** if that is easier. **Fabretta** and **Jay** will cover the basic learning objectives each week along with the rules for the club and a timed quick build for the children to work along with.

Usually the teacher will choose the best from each table and get the children to show their creations at the front. The rest of the children can then vote for who they want to win. You should then take a photo (screenshot) of this with your phone and send it in to us each week (send to competition@millepad.com) Parents and children can then vote for their favourites online.

Team Build Competition

Don't forget to let the children know that you will be sending in some screenshots of their team builds (long build projects) at the end of the half term and that there will be prizes for the best schools!



1. HELICOPTERS- UK

We rely on transport every day to get us to school, to our favourite holiday destinations and to the shops. It's also a vital part of the emergency services. Now we all know about fire engines and ambulances and even police cars but did you know that helicopters play a very important role?

Helicopters are ideal for use in emergency situations. They can take off and land vertically so they are able to access difficult areas and aren't restricted by traffic on the roads. They are used by the police to look for missing people and to monitor activity below and the ambulance service to quickly arrive on scene and take patients to hospital. They are also used by search and rescue teams to carry out their vital work, including **Mountain Rescue**.



Mountain Rescue is voluntary service in the UK available 24 hours a day, 365 days a year. You may have seen their helicopters flying overhead if you have been walking in the hills. The RAF Search and Rescue team generally provide this service however air ambulances have become increasingly involved over the last 5 or so years. Even though they help to rescue people from floods and search for missing people, a lot of the Mountain Rescue's work involves helping trapped walkers from hills and mountains. By using helicopters, rescuers are able to reach people or even animals quickly and can then swiftly take them to hospital where they can be diagnosed and treated quickly.

Things like bad weather and not being able to fly at night can impact the rescue teams however it remains a fantastic and life saving service.



DID YOU KNOW?

Helicopters are not only useful for transporting people, they can also transport water to fight fires! Using a bucket attached underneath, the pilots collect water from reservoirs, lakes and even swimming pools, carry it to the location of the fire and drop it on top. They are very helpful in controlling forest and bush fires all over the world including here in the UK. Have you ever seen one in action?

This week's quick build is....A HELICOPTER!

LONG BUILD

Why not build a race arena ready to race your friends? This week you could work on the starting line and make a start on your race track?

2. BICYCLES- THE NETHERLANDS

Bicycles are a pedal powered, two wheeled form of transport. They were invented in the 19th century and the first designs included the 'bone-shaker' and the 'penny farthing'. The penny farthing had a huge front wheel and whilst it was difficult to get on and off, it was pretty fast and smooth to ride which made it very popular. This popularity, however, didn't last very long as the first 'safety bike' was invented just a few years later which didn't come with the same risk of falling off!

Almost as soon as the bicycle popularity boom reached the Netherlands, the Dutch began to construct dedicated paths specifically for bicycle use. Even though the popularity of the motor car eventually overtook the bicycle, the Netherlands remains well known for cycling and Amsterdam is widely thought of as being the bicycle capital of the world!

If you ever visit Amsterdam, you'll find yourself surrounded by cyclists but it wasn't always that way. Large parts of the city were demolished to make way for roads for cars and it was believed that eventually the use of bicycles in the Netherlands would fade away all together. However, after a series of protests about the risk of car accidents and car-free days, politicians become more aware of the positives of cycling and began to construct more cycling lanes in a number of cities. This then led to the construction of entire cycling networks and an increase in the number of people using bicycles. The age of cycling wasn't over!

Nowadays, the people of the Netherlands now make 25% of their journeys on their bicycles and it goes up to 38% in Amsterdam. Here there are thought to be an estimated 880000 bicycles! There is around 22000 miles of cycle paths and even special civil servants designated to maintaining the cycle path network in all the major cities!



DID YOU KNOW?

Lots of people cycle to get from one place to another but racing is also a very popular amongst cyclists. A popular racing event is the Tour De France which lasts a whole 23 days and covers a huge 2,200 miles!

This week's quick build is....A BICYCLE!



LONG BUILD

Carry on working on your race arena! Finish working on your track and add a finish line!

3. GONDOLAS- VENICE, ITALY

The city of Venice is built on 118 islands, separated by canals and connected by over 400 bridges. As you can imagine, with all that water there isn't really space for roads and so unsurprisingly the city is car free. Instead, Venetians walk and use boats to get around, including gondolas.

Gondolas are an iconic part of Venice. These flat-bottomed and light wooden boats have been in use since the 11th century and by the 19th century, numbered 10,000. They dominated the city's waterways! Nowadays, there are only around 400 and these are primarily used for tourist trips.



The people who steer and move the boat and called **gondoliers** and the career is passed down through families. In order to qualify for a license, they must undertake 400 hours of training and pass an exam showcasing their knowledge of Venetian history, language skills and of course the operation of a gondola. Once licensed, gondoliers are required to wear a uniform. This consists of a white or striped shirt with a straw boaters hat.

Gondoliers are also responsible for the maintenance of their boats. To row, the gondoliers stand up and use a single oar. It is far easier to row this way though the narrow Venetian canals. Interestingly, the boats are slightly lopsided and lean to one side. This is to balance out the weight of the gondolier and helps to make the gondola more manoeuvrable. At 11 metres long, and slightly longer than a London bus, they need to be able to be turned around corners with ease!

DID YOU KNOW?

It is a requirement for all boats to be painted black but in the past, gondoliers used to compete with each other by painting their gondolas bright with intricate patterns. There are still some ornate elements of these boats remaining however; the prow has a shiny trim called a ferro. The 'S' shape represents the great canal, and underneath this top piece are 6 bars. They represent Venice's six districts; San Marco, San Polo, Santa Croce, Castello, Dorsoduro and Cannareggio. Some gondoliers still personalise their gondolas by adding colourful cushions and rugs.



This week's quick build is....A GONDOLA!

LONG BUILD

Why not create a water track? Remember to add some obstacles to make your races really interesting?

4. SUPERCARS- ITALY

Supercars are generally thought of as being cars that are very fast and very powerful. Some people believe that to be supercars, cars have to have top speeds of at least 180mph! They are very fast! The fastest supercar in the world is currently the Koenigsegg Agera, a Swedish car capable of travelling at 278mph! This is followed by the Italian Bugatti Hennessey Venom GT, which can reach 270mph!

Although the term itself is constantly changing, it was first noticeably used in 1920 to describe a high performance car called the Ensign6. That's almost 100 years ago! However, it is widely believed that the 1910 Model 60 Buick Bug was the first true supercar.

The Buick Bug was ultimately a race car and was never put on sale to the public (only 2 were built!) however it certainly appeared to set the pace for future supercars. It was the first performance car to use aluminium body panels to lessen the weight, something still used in supercars today!



Now Italy and supercars go hand in hand with brands such as Ferrari, Lamborghini and Maserati dominating the performance car world. One of the key points along the supercar timeline is the production of the Lamborghini Miura from 1966 to 1973, according to many the first “real” supercar. It's layout is now the standard for all high performance cars to this day!

DID YOU KNOW?

The Italian police are big fans of supercars, they even use Lamborghinis!

The Lamborghini Huracan, which can reach speeds of 201mph, is used to transport donated blood and organs but also carries out patrols in the northern Italy city of Bologna!

This week's quick build is....A SUPERCAR!

LONG BUILD

Why not continue working on your water track? Remember to add some some twists and turns!

5. RICKSHAWS- INDIA

Rickshaws, or tuk-tuks, are a very popular form of transport in many countries around the world, including in India. In the past these three wheeled carriages were pulled by people but these have widely been replaced by cycle rickshaws, which use pedal power and auto and electric rickshaws, motorised versions. Traditionally, rickshaws in India can seat 4 people including the driver and they often run on compressed natural gas, petrol or diesel.

Many cities in India offer rickshaw services as a cheap and easy way to travel short distances and it's quite a novelty for tourists. However, they aren't considered to be too good for long distance travel as they are quite slow and the open sides mean that they can let a lot of pollution in.



DID YOU KNOW?

India is home to the 'Rickshaw Run' - a race that takes part every 4 months with around 85 teams taking part in each one. These teams are made up of between 1 and 4 people who have to ride auto rickshaws from Kochi in South India to Jaisalmer in the north. There is a minimum of £1000 needed to be raised for charity by each team however there is no set route leaving it up to each team to decide which way they want to go! Travelling such a long distance in a vehicle only designed for short trips and tips over when turning corners must be quite the challenge!

This week's quick build is....A RICKSHAW!

LONG BUILD

It's almost time to race! You're going to need a lot of space for your audience so why not build a place for them to sit?

6. CABLE CARS- SAN FRANCISCO, USA

When we think of cable cars, we often picture snowy mountains and skiers but the cable cars in San Francisco are more like the traditional tram you might find in Blackpool! This system is the world's last manually operated cable car system and is widely recognised as being a must see in the city. Over 7 million tourists travel on it every year!

The carriages are pulled along by a cable running underneath the road at just over 9mph, a method invented here over 150 years ago by Andrew Smith Hallidie. It is believed that he came up with the idea after seeing horses struggling to pull carriages up San Francisco's steep hills.



Between 1873 and 1890, 23 lines were built but only 3 of these remain today. An increase in the popularity of less expensive buses and taxis meant that the cable car system was at risk of becoming defunct. However, a campaign was created which showed how much the system was enjoyed by tourists visiting the city and it was subsequently saved.

There are two types of carriages operating on these lines. 28 of the carriages are single ended which means that when they reach the end of the lines, they are turned around using turntables; much like a bus using a roundabout to go back in the direction they came from. 12 of them are larger double ended carriages which means that can travel in either direction without needing to be turned.

DID YOU KNOW?

Every year in July a contest is held to find the best cable car bell ringer, a competition which has taken place since the 1950s. With the San Francisco cable car operators coming from all over the world, despite the bells only having 1 note, there are some very interesting rhythms personal to the ringer's background and traditions!

**This week's quick build is....A
CABLE CAR CARRIAGE!**



LONG BUILD

It's time to race! Are you going to race on land or in the water?