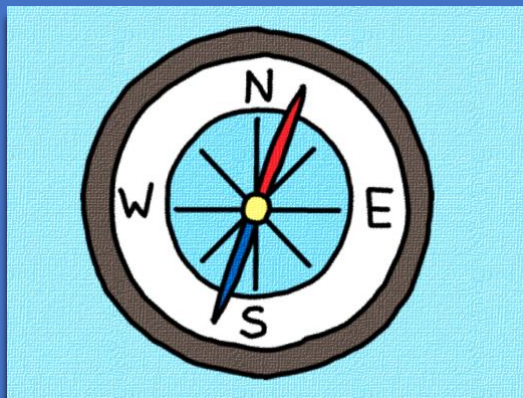


ORIENTEERING RESOURCES



ORIENTEERING FOR PRIMARY
SCHOOLS

Stacey Howard



Contents

- **Counting Cones**
- **Netball Court orienteering**
- **Map Symbols**
- **Google Earth mapping**
- **Intro to maps (Bewerley Park)**
- **School Games**

Counting Cones

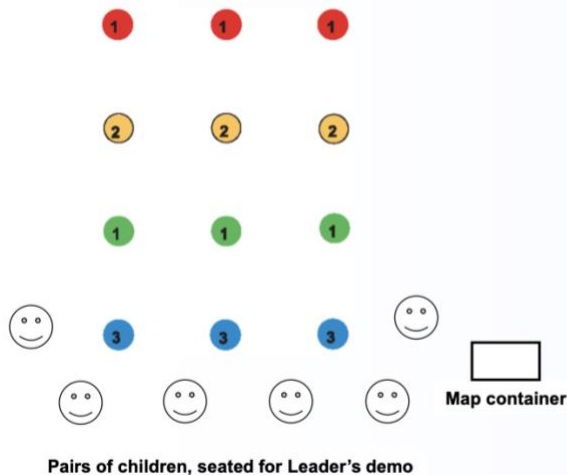
Counting cones is a fantastic introduction to holding a map and following a simple route.

To make sure teams have followed the correct route, insert numbers inside the cones which they then add up along the route. Once at the end of their route they bring the map back to you they give you the total number and if it's correct give them a new route to follow, if it's incorrect they need to repeat the same route.

- Below are 6 maps and answers
- I normally set up 4 grids and pair the children up
- From a maths perspective you can start adding harder maths problems to solve.
- Children can design their own routes to challenge each other with.

Counting Cones

Cones set out equidistant apart using all the available space



Objectives

- ☑ To teach the skills of map orientation.
- ☑ To encourage cooperation .

Equipment

- ☑ 12 cones; 3 each of red, blue, yellow, green.
- ☑ Resource - laminated demo maps.
- ☑ Resource – laminated sets of maps 1-6
- ☑ Resource - Answer sheet.
- ☑ Resource - Recording sheet.
- ☑ Sticky labels for cones, numbered as shown.
- ☑ Container for maps.



Set up as shown.



ANSWERS

Map 1 = 11

Map 2 = 12

Map 3 = 13

Map 4 = 10

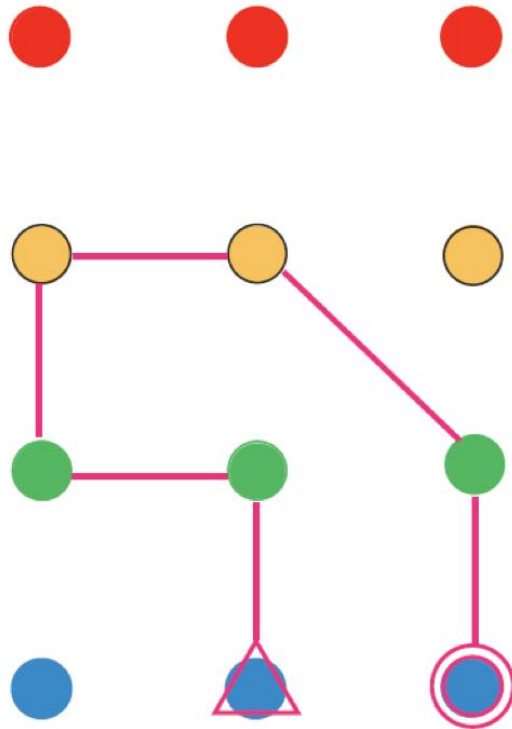
Map 5 = 12

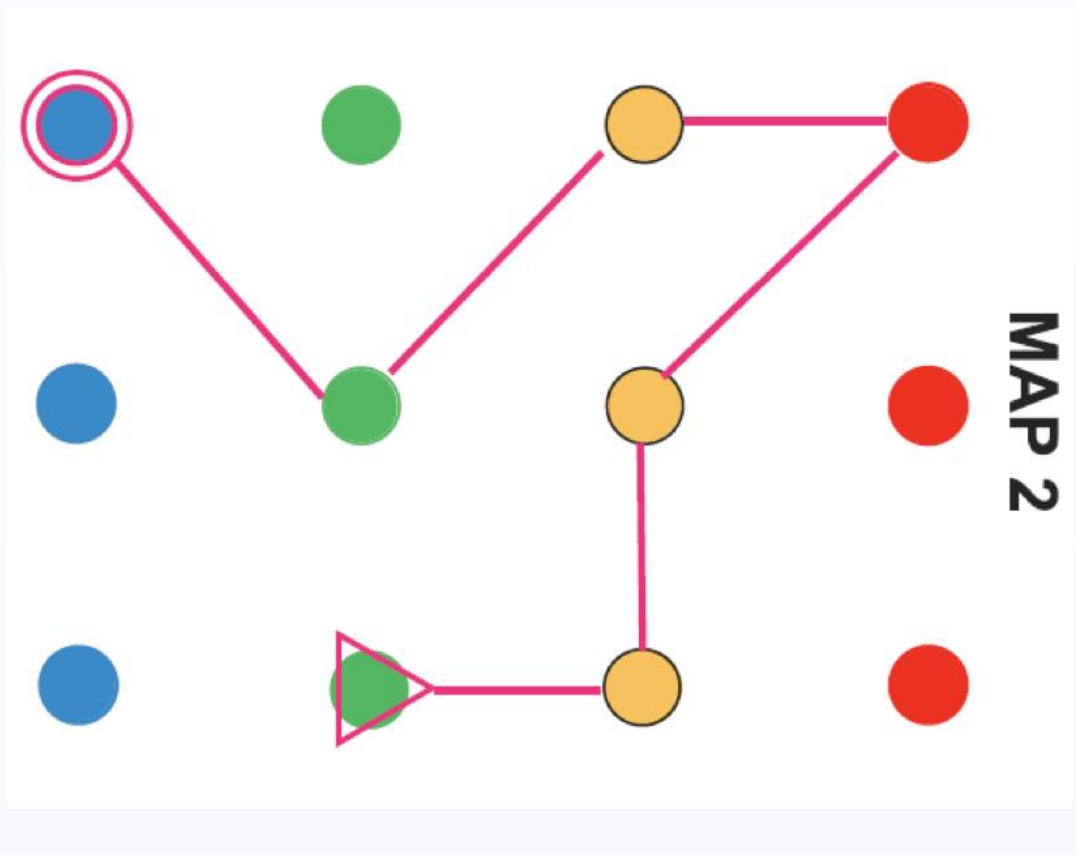
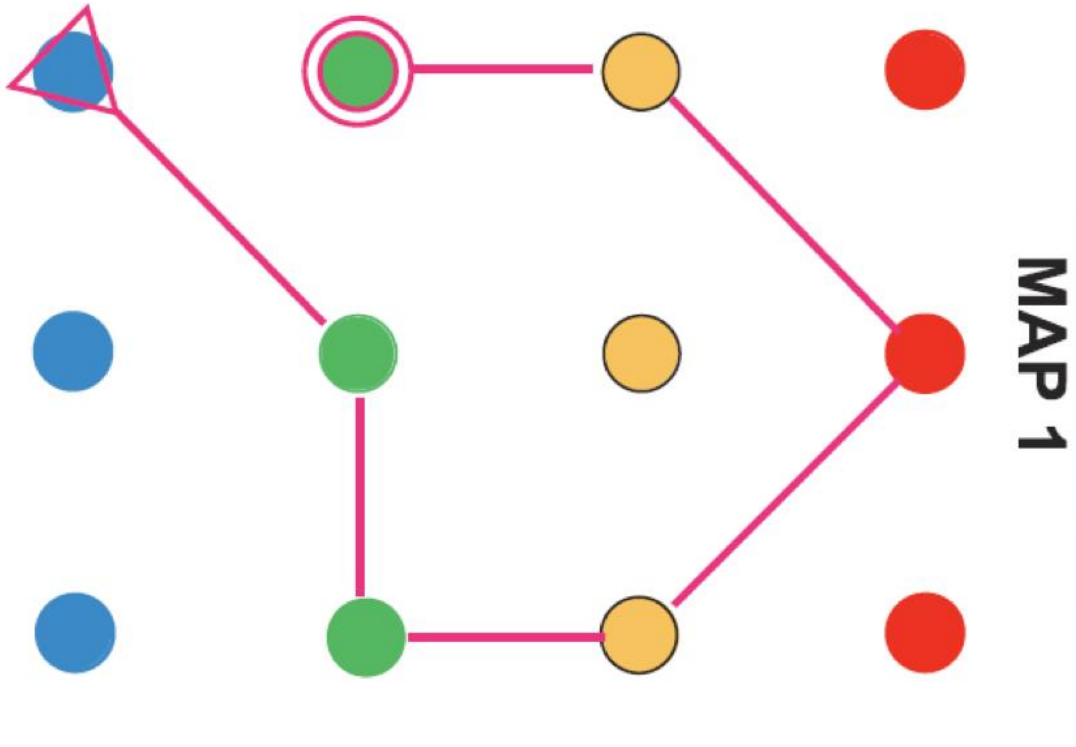
Map 6 = 11

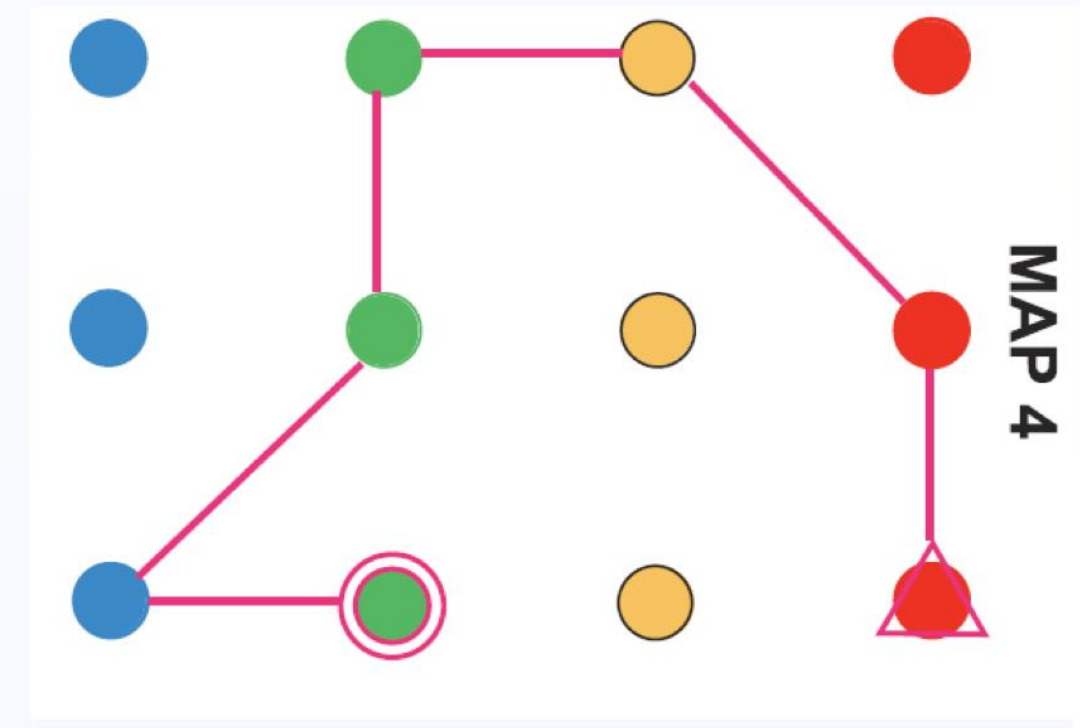
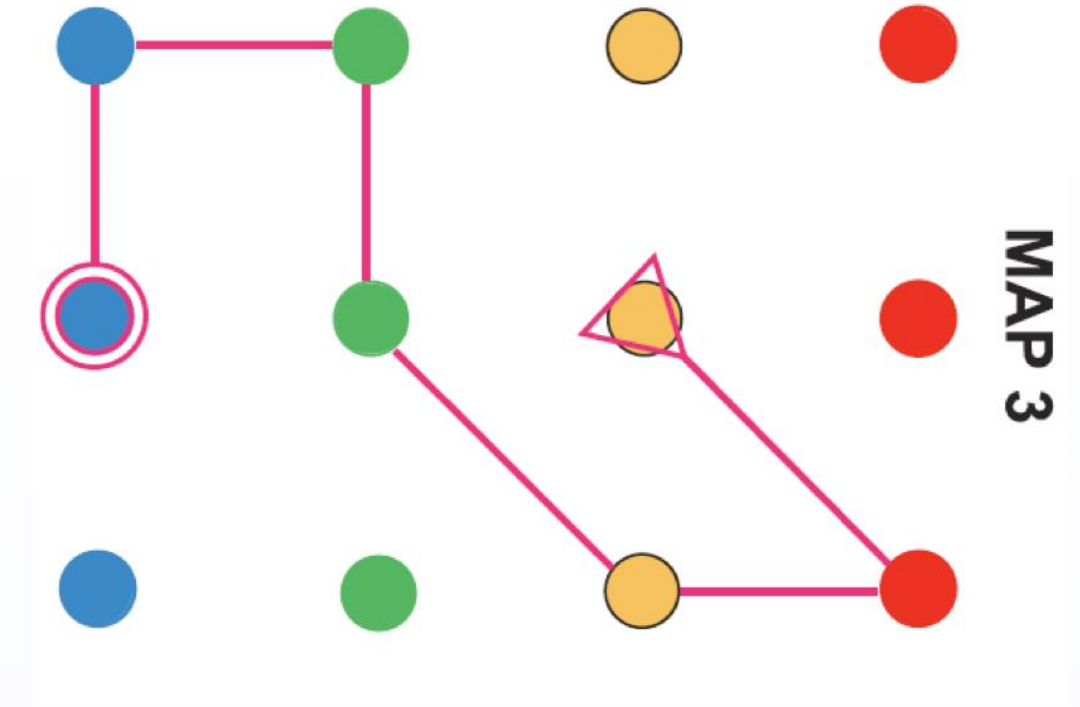


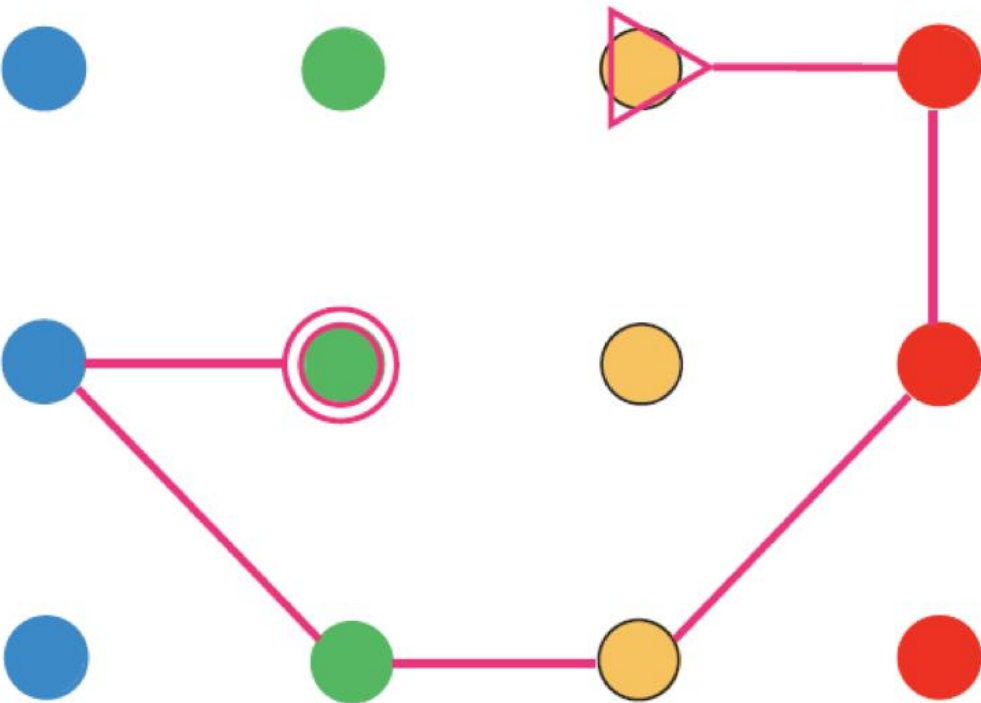
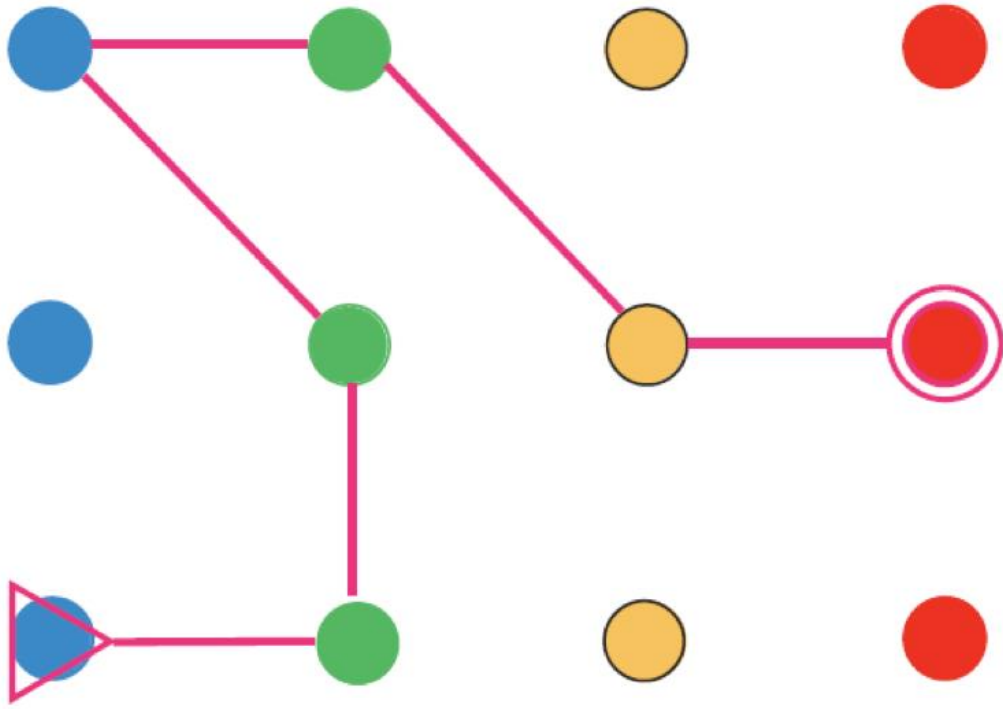


DEMO COURSE



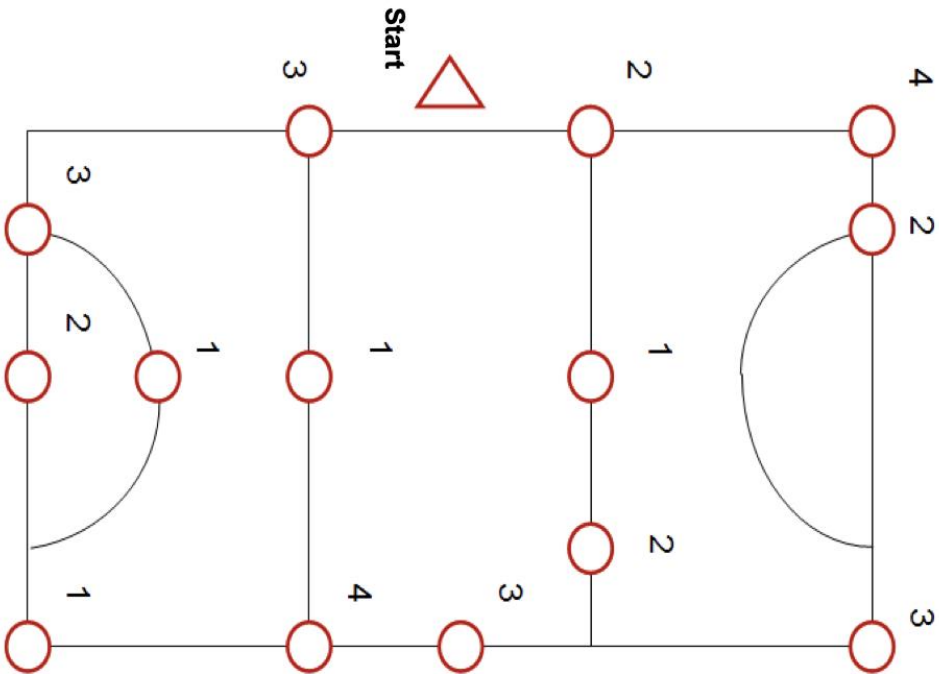






Netball Court Orienteering

A natural progression from counting cones is netball court orienteering. It's the same activity however the routes are a little harder as there are more points to visit.



Example Courses

Set up as shown.

ANSWERS

Course 1 = 14

Course 2 = 15

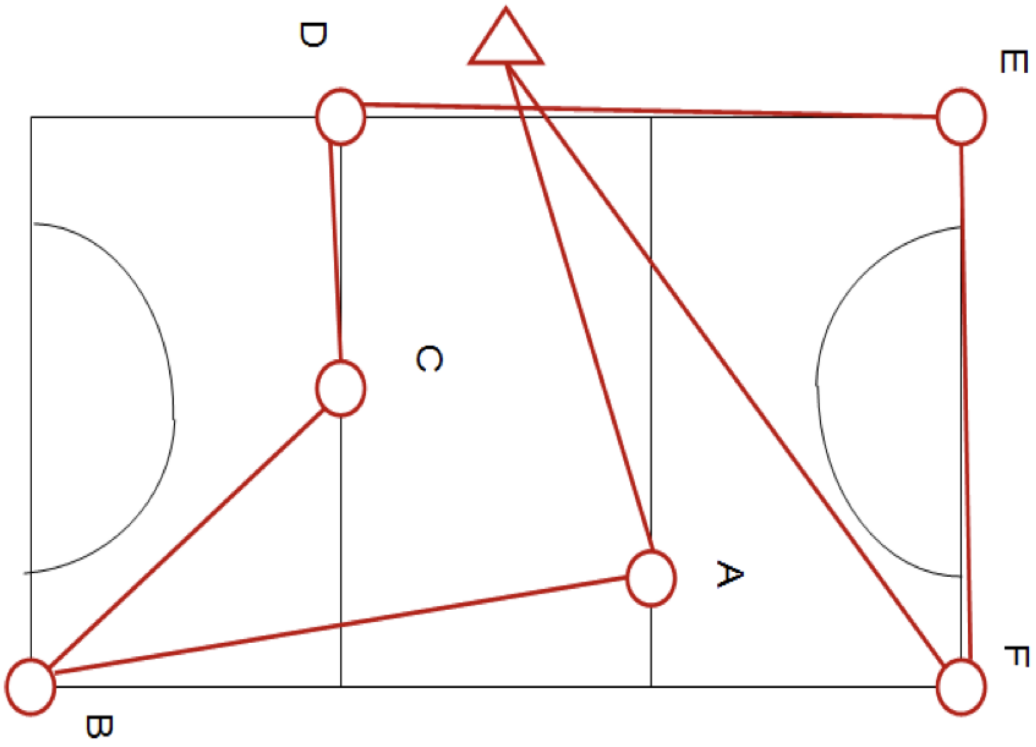
Course 3 = 11

Course 4 = 12

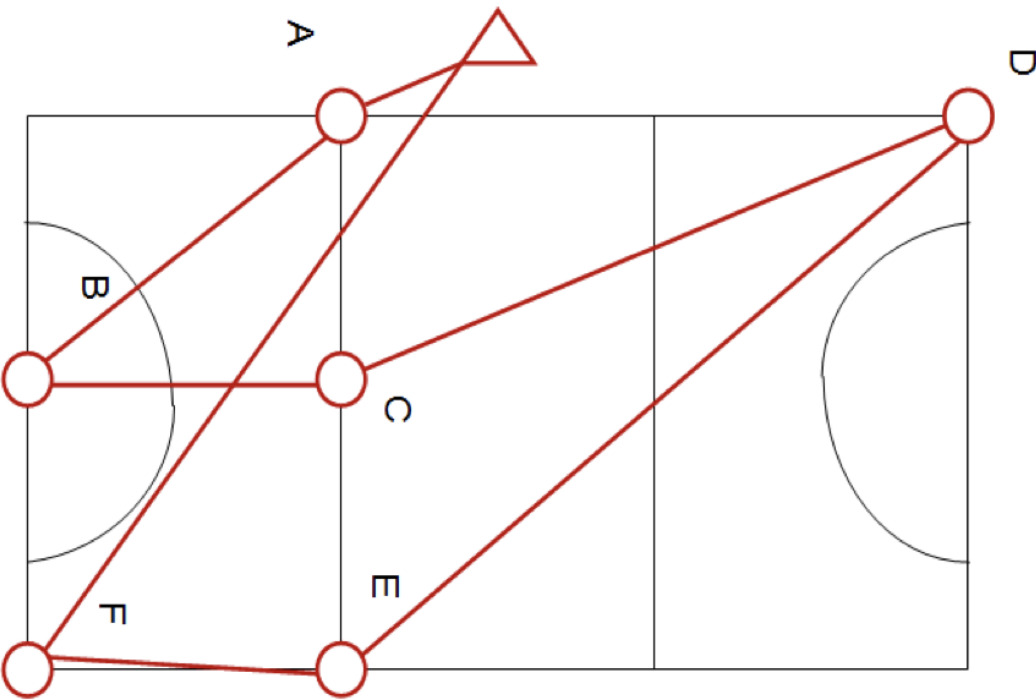
Course 5 = 13

Course 6 = 10

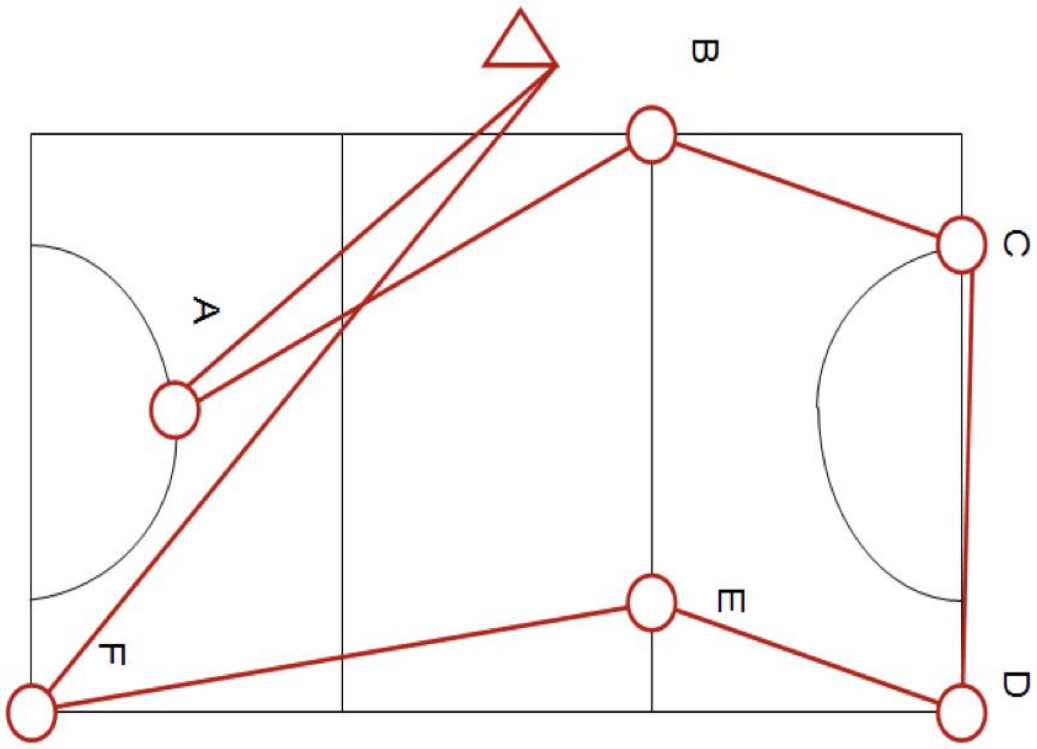
MAP 1



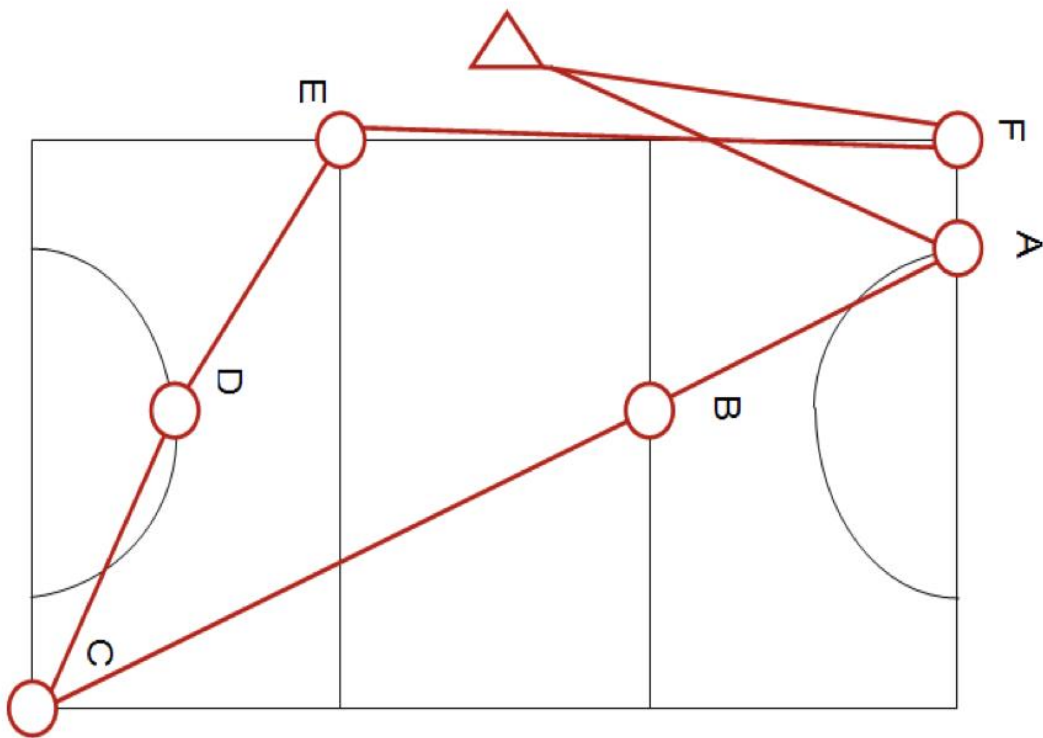
MAP 2



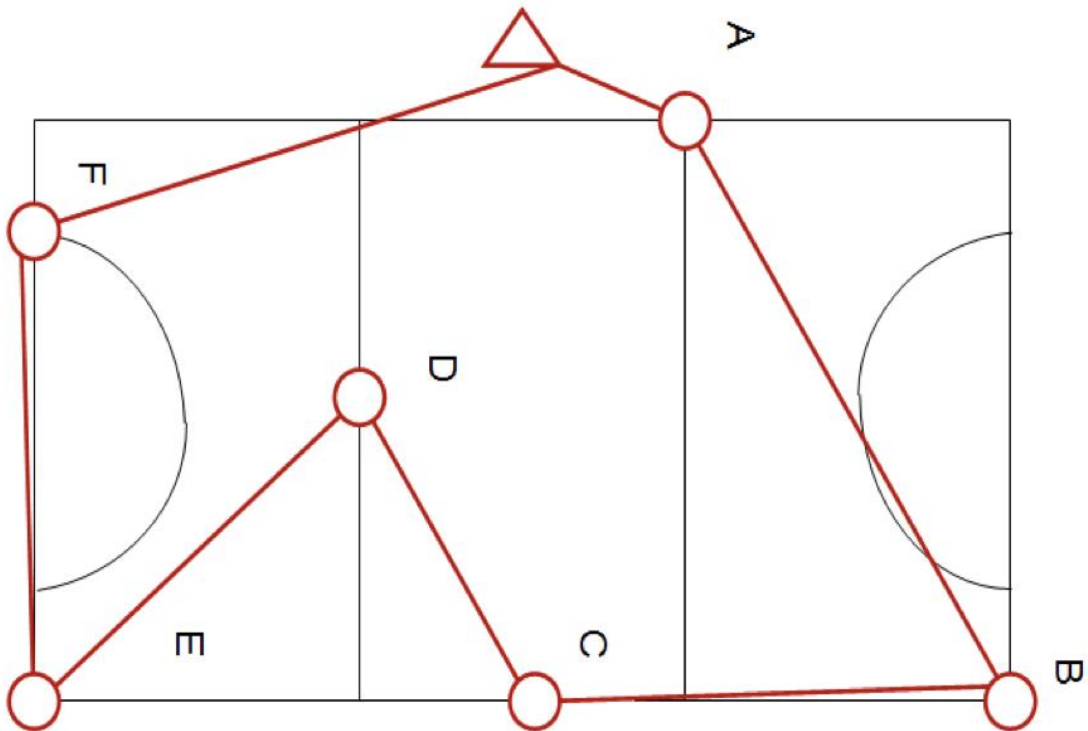
MAP 3



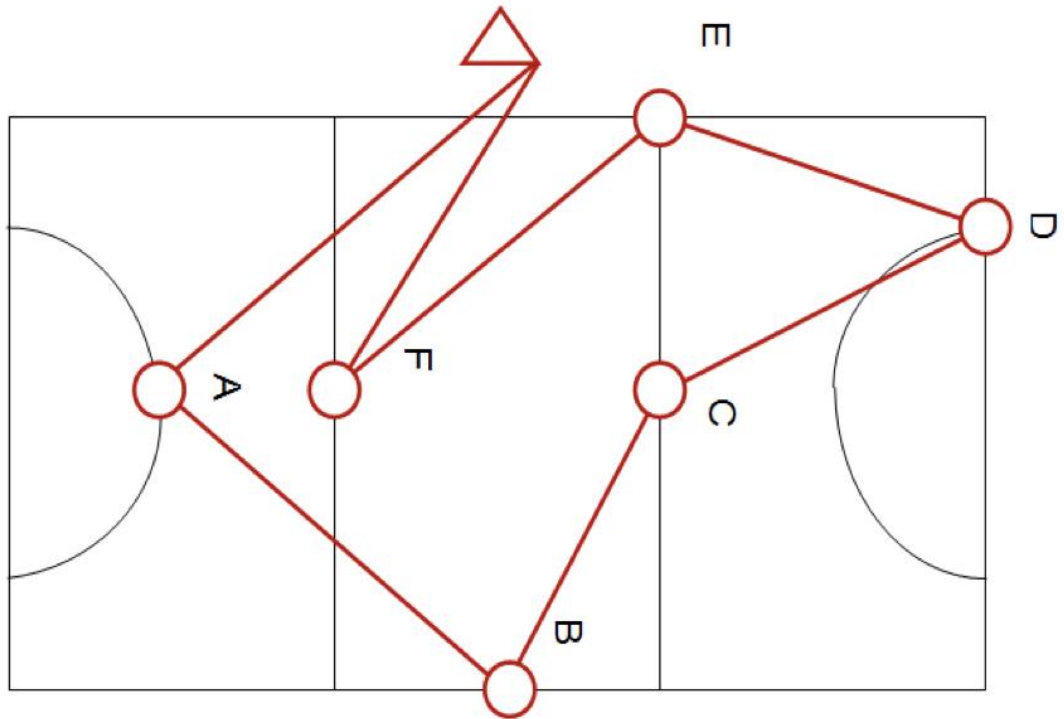
MAP 4



MAP 5



MAP 6





Names	Cross off when completed by each pair					
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6



Names	Cross off when completed by each pair					
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6



Map Symbols

















At this stage before introducing pupils to your school map and setting them off on some orienteering routes it would be the perfect time to go through the symbols they will find on a orienteering map.

Laminate the cards below put out set in a grid and then put the other set in a container, print out as many sets as you would like teams, I've found 4 teams works well.

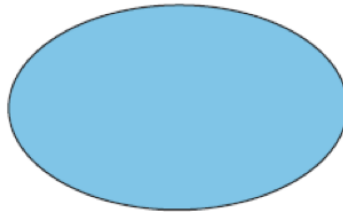
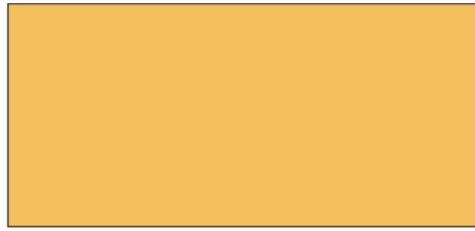
The activity is then run like a relay race, the pupil at the front of the line picks up a map symbol and takes it to the grid of map words/objects they then place the symbol next to the word they think it represents. On the way back they tag the next person to go. You can awards points for the fastest team and then points on how many they matched correctly.

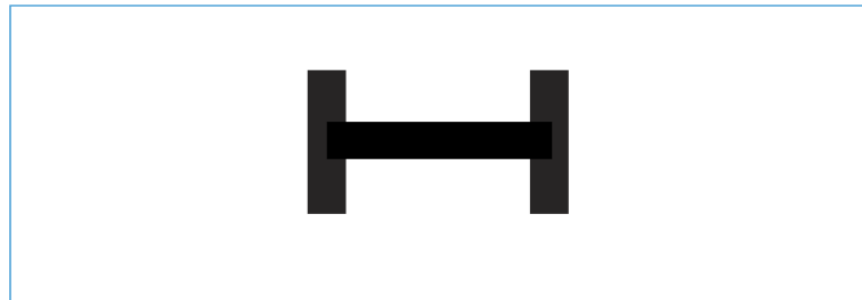
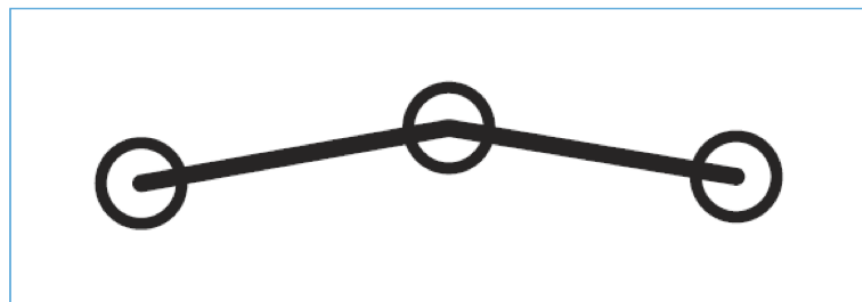
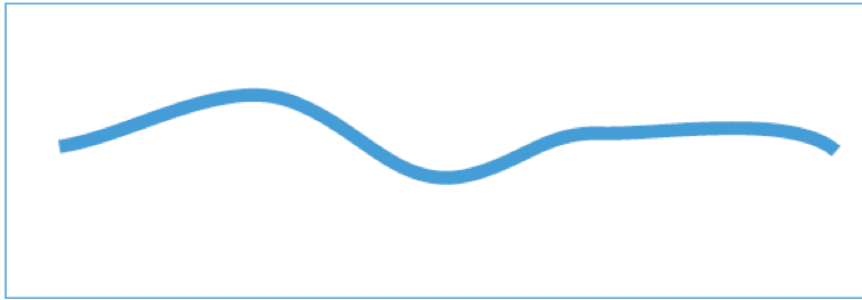
Answers

Map Key

	Building		Open land
	Wall		Playground
	Fence		Forest: run
	Tree		Bushes
	Tree stump		Pond
	Seat		Stream
	Play apparatus		Footpath
	Steep slope		Man made objects





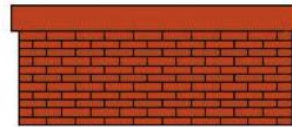




Building



Wall



Fence



Tree



Open land



Bushes



Pond



Footpath



Stream



Play
apparatus



Seat



Man made
objects



Playground



Tree stump



Forest: run



Steep slope



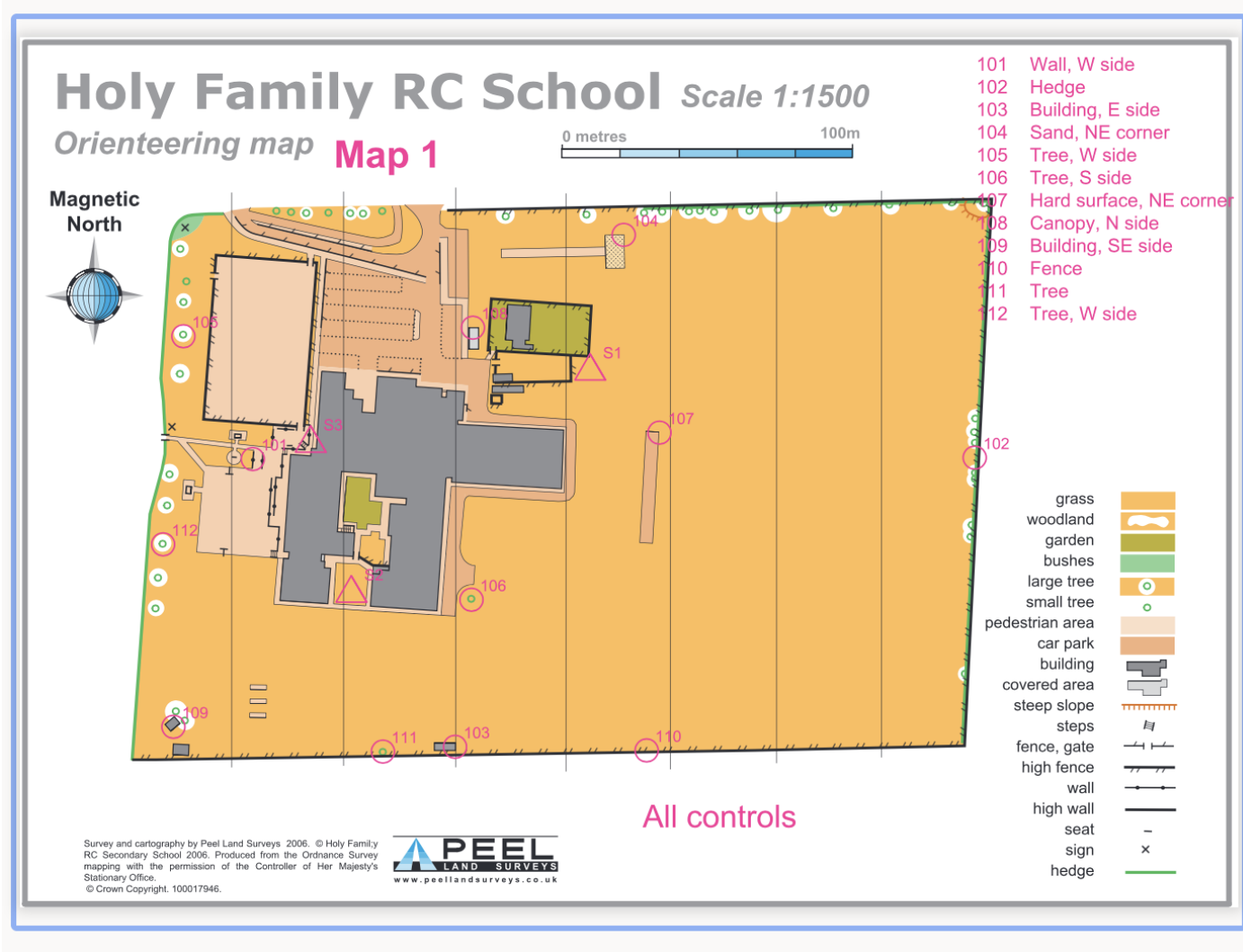
Schools Orienteering Maps – Google Earth

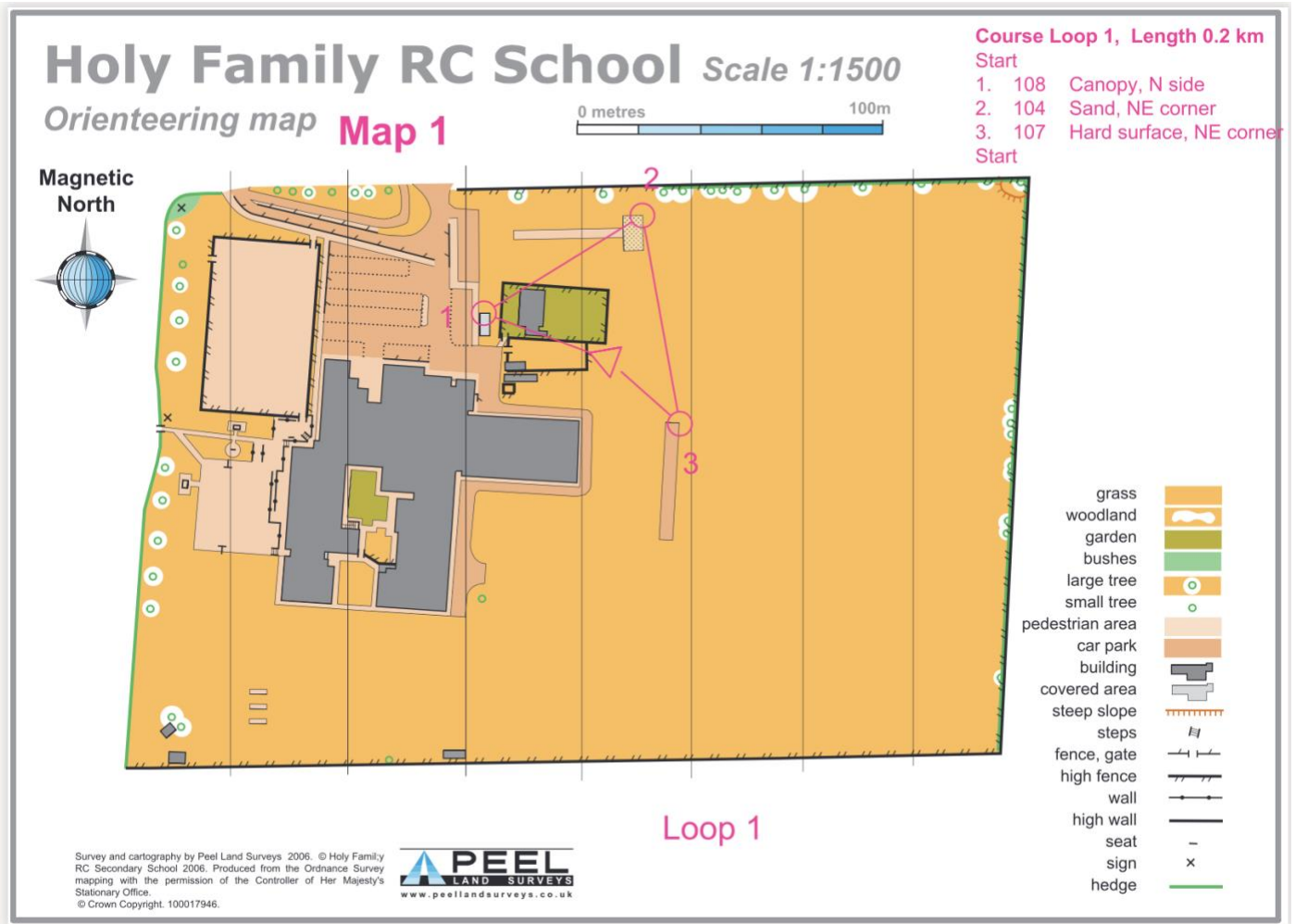
If you have had your school mapped for orienteering, you don't need this section. While you currently have access to the Primary PE funding, I would recommend that you have your school professionally mapped, the benefits of this include the maps being to scale, all the symbols will be present and creating your own map can be time consuming and fiddly.

I am going to show you two versions of making your own orienteering map to help you on your journey.

First of all this is what a professionally made orienteering map should look like. You can see how by introducing the pupils to the map symbol game now helps understand an orienteering map.

This is the master map for the adult, it shows you where to put all your markers/controls, it includes a guide to the symbols and where to place your control e.g Tree, west side.





From the all controls map you can then make many loops. This is loop one consisting of 3 controls. Control 1 would be flag number 108. Each flag has a different marker to collect, this is so you know if they have been to the correct flag.

Markers can be a traditional orienteering punch which leaves a pattern on a score card, if you don't have these you could use different coloured pens, patterned hole punches or stickers to collect, it can be anything you want as long as each control has something different at that you have an answer sheet.

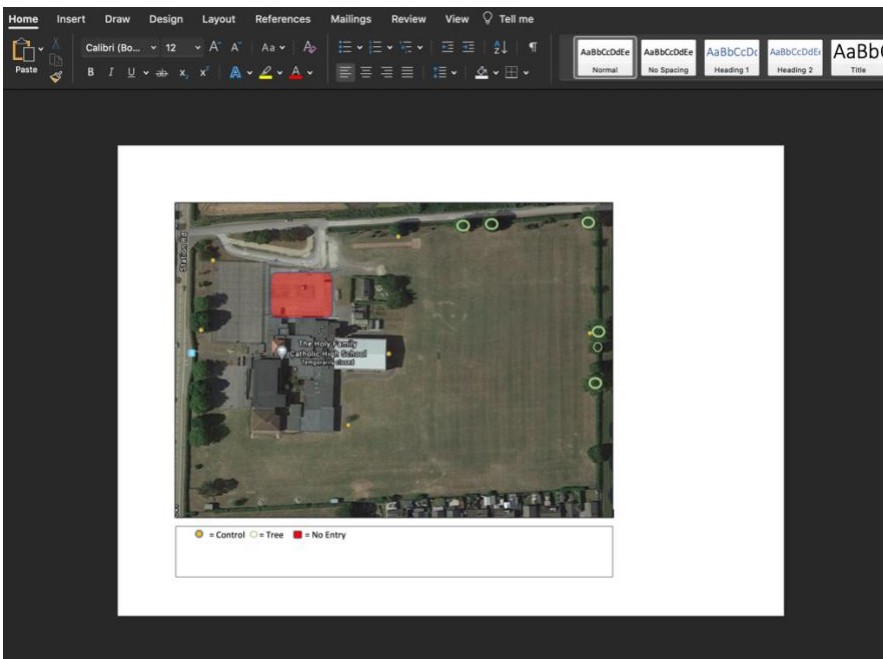
On a professionally made map, it will also tell you the distance covered for each loop, in this case Loop 1 covers 0.2km

How to make your own map

First of all you need to access google earth and find your school, I find it easier to manipulate on a tablet than I do on the computer.

Once you have found your school, take a screen shot and crop it so that only your school features on the map.

Once you have your map add this into a word document making sure that your map is set to North. Leave space around the photo for you to write in your loops and controls.



Once in word you can add your control markers and add symbols using the shapes tool bar, making sure your symbols match those on the map symbol game.

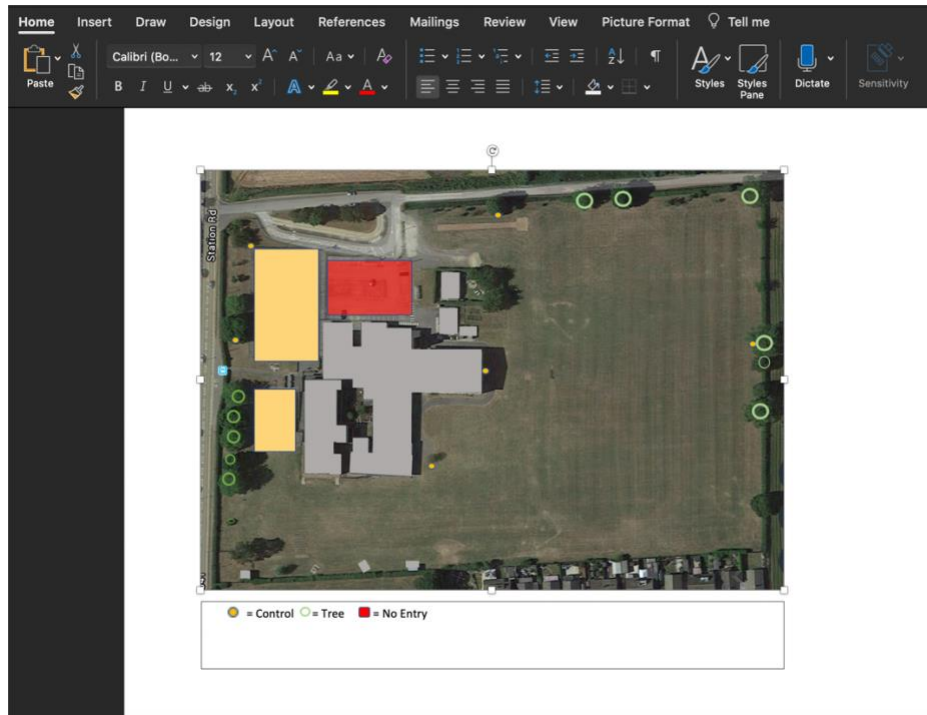
This is your first step. You can keep your map as simple as this, adding a minimum of 10 controls, you can also in the space on the document add all the different routes.

I would stick to visiting 3 controls per loop.

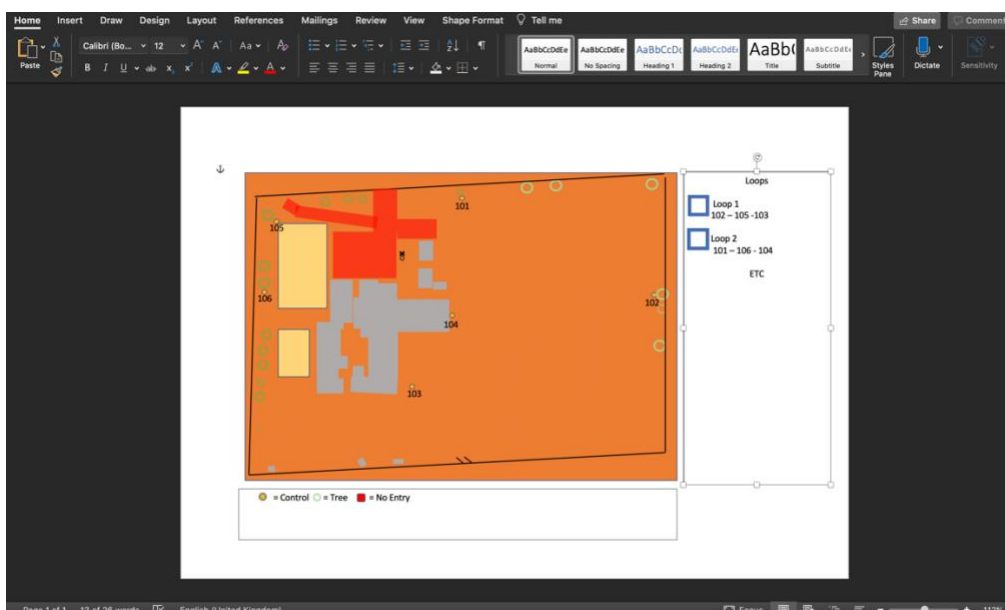
E.G. Loop 1 = 104 – 106 – 109

Loop 2 = 107 – 103 – 110

For some of you, you may feel that this is enough of a map, however if you are planning on sending pupils to orienteering events I would suggest going one step further and making the above into an orienteering map and getting rid of the photo. It should start to look something like this



Once you have added all the detail you can delete the photo and add the open land box



Once you are at the above stage you can then add the finer details such as the lines to represent a fence and all the symbols such as footpath, play equipment etc.

As you can see it isn't perfect but it does introduce the children to orienteering maps if you don't have the option of having a professional map made.

Traditional controls are a white and orange flag that you then add a control punch to. I have now started using these control markers. They are easy to put out, they double up as a whiteboard marker and I have also added a dot of Velcro so that I can add other resources to the marker. One of the advantages of these is the storage and not having to detangle the controls from the punches.

GEONAUTE



Ideas for the whiteboard/Velcro

- Maths equations
- Lesson re-caps/ assessment e.g. you can put the controls out with questions on from the lesson you have just delivered, could be any subject. Then they go and write the answers to the questions you have set. From this you will then be able to work out if the class have a good understanding of the lesson you have just delivered.
- On the Velcro I download images for the children to identify such as different leaves.

Intro to maps – From the team at Bewerley Park

Bewerley Park and East Barnby are North Yorkshire's Outdoor Learning Provision. As someone who has been on numerous CPD courses and school visits I can't speak highly enough of the team, professional, knowledgeable and friendly.

www.outdoored.co.uk



North Yorkshire
Outdoor Learning Service



Presents...

Map week Day 1 – What is a Map?

Let Adam and Hollie tell you all about maps. Then make your own!

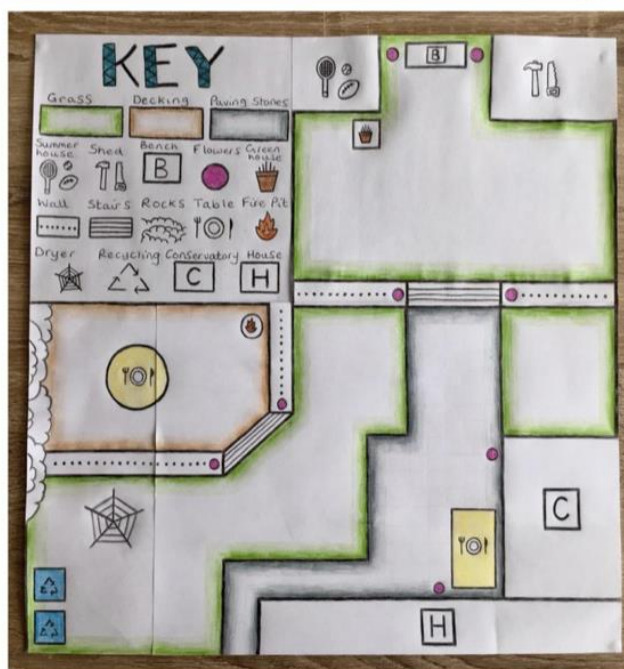
Want to learn an incredibly useful and fun skill to help you have some great adventures when lockdown is over? This week is all about maps! For hundreds of years maps have helped people travel from one place to another. Maps are basically drawings of the ground from a plan view (a bird's eye view) and use lines and symbols to represent real-life objects; like roads, fields and buildings. There are many different types of maps, from maps that you can draw yourself to the very detailed Ordnance Survey maps of Great Britain.

Maps often use symbols instead of words to label real-life features and make the maps clearer. Symbols can be small pictures, letters, lines or coloured areas to show features like campsites, picnic areas or car parks.

Hollie has been hard at work drawing a map of her garden. Can you draw a map of your garden or house or maybe both? As you can see on Hollie's map, she has made her own symbols, and has made a key next to the map.

Hollie's Top Tips:

- Imagine you are a bird. What would your garden look like from above? Draw what you can see...
- Draw a basic outline of the shape of your area on a piece of paper. Include as much detail as you like.
- Use different colours to differentiate parts of your garden.
- Be imaginative and original with your symbols for your key.



Now use your imagination! What colours will you use? What items in your garden will you put on your map? We love seeing all of your work, so please post your maps below for us all to see! Check back tomorrow for ideas of how to use your map and learn about using it!



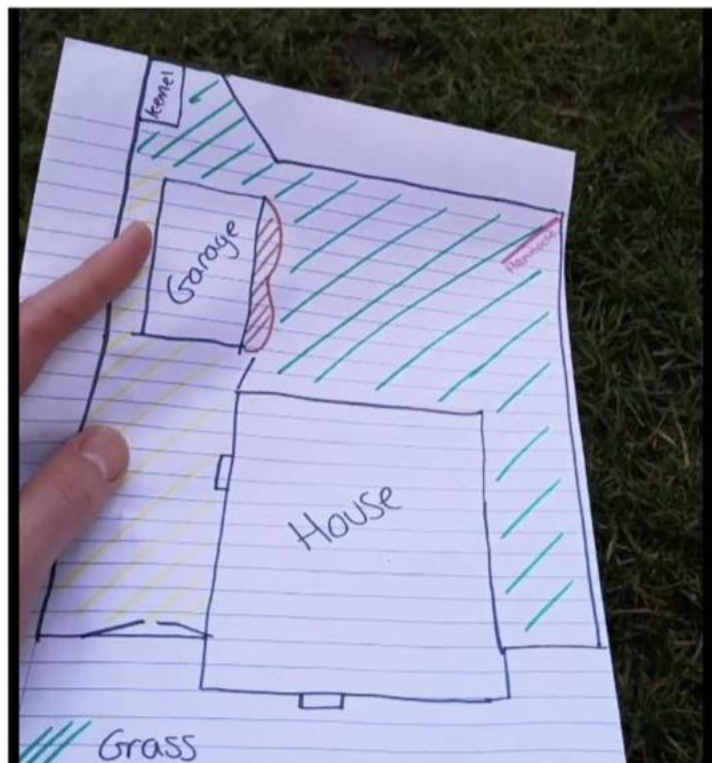
Map week Day 2 – Using a Map

Today Adam will guide you through using your map.

Now that you have made your map, it is time practice using it! This is a really handy task that encourages you to practice orientating your map. Your map represents the real world. Orientating your map basically means that your map is lined up and facing the same way as the ground. Imagine you're a bird looking down on your garden, does your map line up exactly like the garden is? Where in your garden are you stood? Is your shed in the right place? Check out the video on Facebook of Adam, one of the Bewerley Park Tutors showing you his top tips for orientating your map and how to find objects marked on your map.

Today's Challenge: Hide and seek with baked beans!

1. Find a family member and ask them to hide a tin of beans somewhere in your garden.
2. Ask them to mark, with a red 'x' on your map where they have hidden the tin of beans.
3. Use the technique Adam showed you in the video to try and find your tin of beans!



Did you find your tin? You can make this more challenging by adding more tins and asking your helper to hide them in more challenging places.

Map week Day 3 – Grid Squares

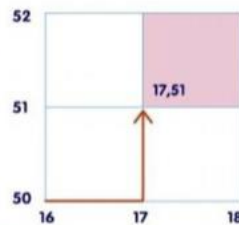
Today Hollie will explain how to set up and use a Grid Square on your map

Maps can be divided into a series of squares. Together, these are known as a grid and they help you to locate the features of your map within them. The grid lines are numbered, across the top and bottom (eastings) of maps and up the sides (northings). Each square has a grid reference. You get this by putting together the numbers of the easting and northing that cross in the bottom left hand corner of the square. This gives you the 4 figure grid reference. However, this wouldn't give you the exact location, as every square on most maps is the same as 1km² of the actual landscape; that's a big area! This is handy for finding something big like a town or lake on maps.

How to make your grid

1. Divide your map into a grid. Make each square the same size. Hollie has used 3cm squares, which has worked well on her map.
2. Number the eastings (vertical) grid lines, left to right, 01, 02, 03, 04 etc.
3. Number the northings (horizontal) grid lines, bottom to top, 20, 21, 22, 23 etc.
4. Use the Quick reference guide below to find the 4 figure grid reference for grid square that you are stood in.
5. Find the 4 figure grid reference for the grid square that contains the following items: a red 'x', a door, a tree and a flower.

When we need to be more accurate with the grid references we add an extra number (between 1 and 10) to the easting and the northing. This 6 figure reference pinpoints a place to within 100 metres on the map. Great for finding road junctions, bridges or mountain tops! Can you find the 6 figure grid reference for some items in your garden?

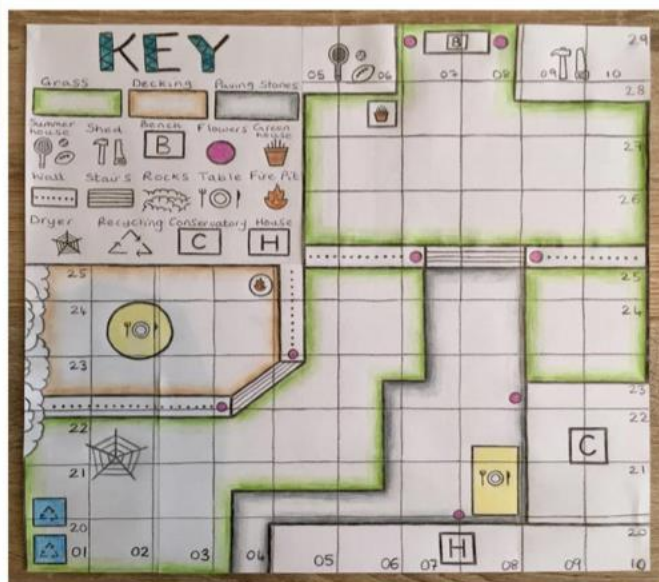
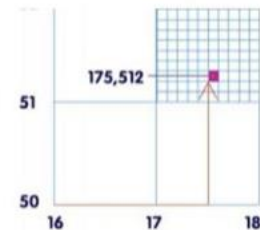


Four-figure grid references

Each square has a grid reference which you get by putting together the numbers of the easting and northing that cross in its bottom left hand corner.

Six-figure grid references

In your head, you should be able to divide all sides of the square into ten equal sections. By doing this, you can pinpoint locations within the square – these are called six-figure grid references.



Map week Day 4 – North, South, East, West

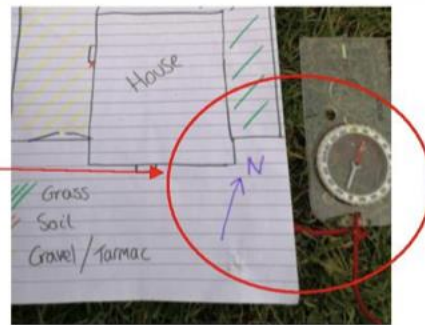
Today Adam will explain the Cardinal Points of the Compass

A compass is an important tool for map readers. It tells us which way is north and where to find east, south, and west. Together, these are known as the four cardinal points of the compass. What phrase do you use to remember them and their order? Our favourite is Naughty Elephants Squirt Water! (Try making up your own!)

Adding a North arrow to your map

Find north! The easiest way is to use a compass. If you don't have a compass, can you remember our first daily activity? 'Make your own backyard compass'. If you missed it, check it out on our Facebook page, it was 19 March 2020. Another way to find north is to stand with your back to the sun around midday. The way you are facing is North.

Lay your map on the floor, with it orientated correctly and place your compass on the floor next to the map and draw onto your map a simple arrow pointing north like Hollies.



Now that you know where north is and it is marked on your map, you can use this to orientate your map.

Can you visit the most northerly part of your map? Can you visit the most easterly? What object is to the south of you when you are stood in the middle of your garden?

There are lots of map reading and geography resources available at The Ordnance Survey Map Zone. Check them out online and be inspired! Tomorrow to finish off Map Week we will be showing you how to make your map look old and how to create a treasure hunt with it!

Map week Day 5 – Create a Treasure Hunt

Use your map skills to make a Treasure Hunt.

To Create a Treasure Hunt you first need to create some clues. The clues will guide your players around your mapped area, from one spot to the next, building anticipation for big treasure reveal at the end!

Remember to use grid references and compass directions, as well as written clues! We have given you some examples below to get you started! You can use or vary these and make up your own hunt clues...

- *Go to the most north eastern part of the garden.*
- *The next clue is under the plant pot at grid reference 10,24. (You could even use 6 figure grid references for a more challenging clue!)*
- *Take a walk and step outside, this is where you go to ride. (put the clue where you store bikes)*

You need to prepare the treasure and figure out where you are going to hide it. Chocolate? Sweets? A medal? You choose! Get creative and make your treasure hunt the best yet! It is all up to you!

Bonus Challenges!

'Age' your map and some online quiz fun!

See the Video Guide on our Facebook page to help with this challenge...

1. Crumple up your paper!
2. Ask an adult to help you burn the edges.
3. Dab/paint with a wet tea bag.
4. Allow to air dry or use a hair dryer.

Did you know?

Search for the terms Ordnance Survey Did You Know for a fun quiz from the Ordnance Survey to test your knowledge of mapping and general trivia.

We hope you have enjoyed creating your own maps and learning how to use them. If you have a visit to one of our centres in the future, we look forward to seeing your map skills in action during Orienteering and Hill Walking! As always, we love seeing your creations, so post your treasure maps below!

School Games – How to run an intra competition

PRIMARY INTRA-SCHOOL/LEVEL 1 RESOURCE – COMPETITION CARD

ORIENTEERING – SCORE COMPETITION



Equipment required

- Map of site
- Controls (with punches/crayons/numbers or questions).
- Map with control locations marked on – enough for each competitor or team.
- A control card with space for answers - e.g. space for punching, writing the number etc.
- Stopwatch/whistle to start and finish competition.
- See www.britishorienteering.org.uk/page/schools for resources and further information.

Quick rules

- Players start and finish at the same place.
- Controls can be visited in any order in a set time (e.g. 20 mins).
- A score competition can be a mass start or staggered start at intervals.
- Individuals or teams have to arrive at the finish within the set time or they get a penalty for a late return.

Health and safety

- Follow the instructions carefully.
- Be aware of the boundaries for the competition.
- Explain or be clear on any out of bounds areas (e.g. car parks).
- Be mindful of other competitors when running with a map.
- Know where you are on the map at all times.



FOR YOUNG PEOPLE

Think tactics

- Keep the map set to the ground and know what the symbols around you (e.g. trees) represent on the map.
- If competing as a pair or a three think carefully about the members in your team and how you can be the most effective.

Spirit of the Games: Excellence through Competition



Develop your passion for orienteering. Finding controls at speed or in a set space of time involves challenging your physical and intellectual limits. Feel the excitement when you find the controls.



WWW.YOURSCHOOLGAMES.COM

ORIENTEERING – SCORE COMPETITION



Quick introduction

The score competition involves players visiting as many points ('controls') as possible in a given time on an enclosed mapped site.

Getting started

- The game can be played individually, in pairs or as a team competition.
- A network of controls are planned which are distributed over a mapped site (e.g. school playing field).
- The controls can be control markers with a marking device (e.g. punches); questions to answer at each control site or number values (e.g. based on difficulty or distance from the start/finish points).
- Players have cards on which they make a mark to show they have visited that control.
- The player/team that visits the most controls in the given time wins.
- A team competition can involve pairs or groups of three going round together or individually.
- If controls are worth a numerical value, the player or team that scores the most points in the given time wins.



ORIENTEERING – SCORE COMPETITION



Hints and tips

- No orienteering equipment is required - you can simply use cones with numbers to mark control points.
- This game can be done indoors (draw a map of your sports hall or indoor space).
- Although being indoors limits distance - think cross curricular e.g. maths or geography questions at the control points.

Leadership and volunteering opportunities

- Young leaders can check that teams or individuals have got the correct answers from controls.
- Ensure others compete fairly, keeping the information found at a controls to themselves and not seeking answers from other competitors.
- Young Leader training is available. See www.britishorienteering.org.uk/page/teaching

Officiating

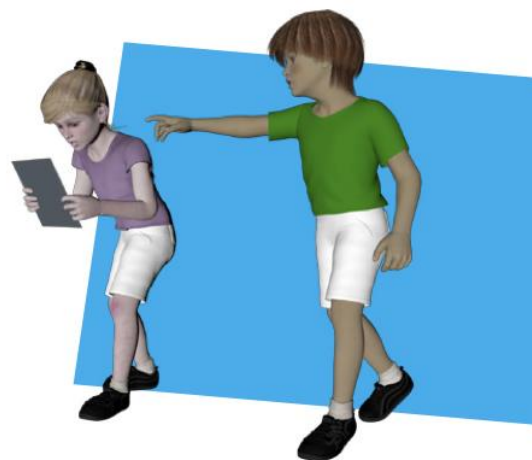
- Officials can deal with timekeeping.
- Be positioned at out of bounds points/places of danger.
- Be at start/finish points to ensure the smooth running of the competition.

Think inclusively STEP

- Space**
- Consider using a hard surface when including SEN / disabled athletes.
- Task**
- Reduce or increase the number and distance of controls away from start/finish.
 - If appropriate create a shorter or simpler course within the regular course. Add additional controls if required.
- Equipment**
- Create a tactile map that visually impaired athletes can access. Raise controls off the ground to provide easy access for SEN/disabled athletes.
- People**
- Ensure appropriate teams compete against each other.
 - Allow visually impaired athletes to work with a guide.
 - If beneficial allow SEN/disabled pupils to work in teams.



Score card.



WWW.YOURSCHOOLGAMES.COM



ORIENTEERING - NETBALL NUMBERS

Equipment required

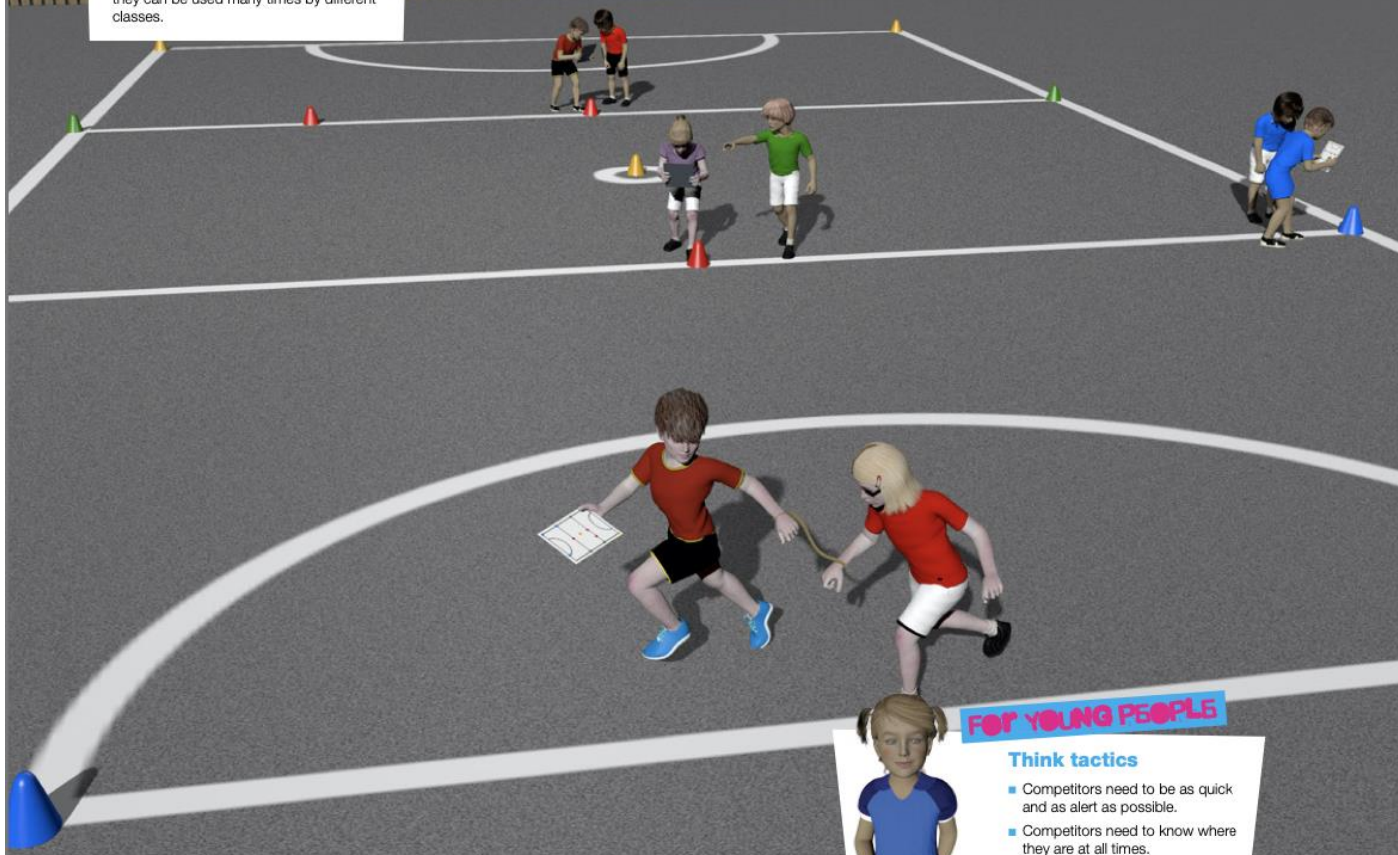
- Map of court being used, i.e. netball court.
- Cones to act as control points (with punches/crayons/numbers or questions).
- Master map courses - with cones/courses marked on (and answers if applicable if course adds up).
- Map with cone locations marked on - enough for each competitor or team.
- A card with space for answers, e.g. space for punching, writing the number etc.
- Stopwatch/whistle to start and finish competition.
- Once you have established these courses they can be used many times by different classes.

Quick rules

- Start at the start point and finish at the finish point.
- Make sure you visit all of the points that are marked on the map in the correct order.
- Fill in the correct information that you find at each control point.
- Have your answers checked after you have finished.

Health and safety

- Recognise the dangers of running with a map.
- Avoid pushing or bumping into other competitors when running in an enclosed space.
- Players must stay away from the competition area unless it is their turn.
- Avoid wearing anything that may cause danger to opponents; this includes caps, jewellery and other sharp objects.
- Ensure appropriate run off exists around the court; this avoids any momentum causing them to run into walls or doors.
- Ensure the area is dry and object free at all times.



FOR YOUNG PEOPLE

Think tactics

- Competitors need to be as quick and as alert as possible.
- Competitors need to know where they are at all times.

Spirit of the Games: Excellence through Competition



Develop respect and trust between yourselves and for others. Encourage the involvement of young people with cognitive or learning difficulties using a safe and familiar sports area.



WWW.YOURSCHOOLGAMES.COM

ORIENTEERING - NETBALL NUMBERS

Quick introduction

Netball numbers is a fast paced competitive introduction to orienteering, reinforcing the skills of map orientation and accuracy to complete a course in the order stated on a map.

Getting started

- Find a court with markings and place cones on a series of points on the court.
- Using a diagram of the court as the basis of a map, draw on a course linking a set number of cones. Make sure you include a starting point and a finishing point. Examples can be downloaded from the British Orienteering website. See www.britisshorienteering.org.uk/page/schools
- Using the same layout of cones, you can draw on separate maps different competitive courses by linking the cones in a different way.
- Competitors are given a map of a course. Keeping the map orientated as quickly as possible they must go to the cones in the order it states on the map, adding up the points along the way.
- Once they have found each cone and added up the total the answers must be checked to ensure they are correct.
- The competition can be run as an individual competition or as a team/relay competition.



ORIENTEERING - NETBALL NUMBERS



Hints and tips

- A plan of a football pitch, badminton court, all weather pitch or similar provides a variation.
- Even a playground can be used with their lines/ markings.
- Get the children to draw their own mapped area on which to do the competition.

Leadership and volunteering opportunities

- Encourage young leaders or older pupils to set courses for a competition by planning and placing cones on the court markings and drawing these locations on a blank court map.
- Encourage them and support competitors.

Officiating

- Setting up the course/s.
- Timekeeping.
- Checking answers.
- Be at start/finish points to ensure the smooth running of the competition.

Think inclusively STEP

Space

- Consider using a hard surface when including SEN/ disabled athletes.

Task

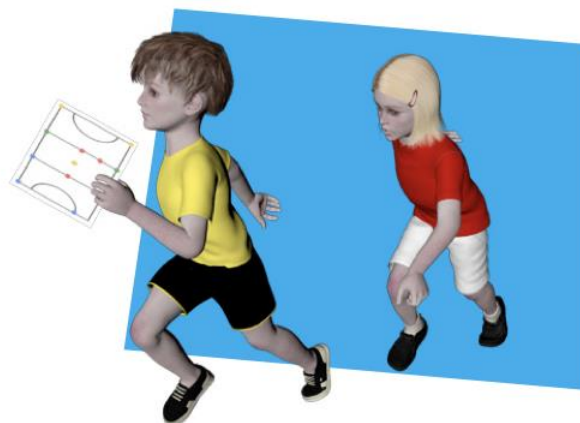
- If appropriate create a shorter or simpler course within the regular course. Add additional controls if required.

Equipment

- Use letters instead of numbers to create this word.
- Create a tactile map that visually impaired athletes can access. Use spots or tactile markings instead of cones for SEN/disabled pupils.

People

- Ensure appropriate teams compete against each other.
- Allow visually impaired athletes to work with a guide.
- If beneficial allow SEN/disabled pupils to work in teams.



Next Steps

Now that you have the resources you can make a start on introducing your pupils to orienteering.

You can add to the resources by designing your own netball court or football pitch maps.

If you would like more support or some CPD for your staff I can currently do this via zoom, just email howards@holyfamilycarlton.org through my role as SGO

Once schools have re-opened I'm happy to come in and deliver an after school CPD training session, just an hour to get you going.

For orienteering days at your school this can be done via my Outdoor Ted business. Groups can visit the Skylark Education Centre based at Barlow, Nr Selby or I can deliver to different groups in your own school grounds. Visit www.outdoorted.co.uk for more info or message outdoorted@outlook.com for more details.

For school residential visits we highly recommend the teams up at East Barnby or Bewerely Park. Visit www.outdoored.co.uk



Taking Education Outdoors in the Selby District. Bespoke days delivered at the Skylark Education Centre or in your own school grounds.



North Yorkshire Outdoor Learning Service.
CPD for teachers
Residential visits
Non-residential visits

