

Getting started

Content summary:

A whole class activity that introduces the BBC micro:bit playground survey and how to get started. Pupils will discuss data privacy and security and make their playground map to define their playground boundaries for the activities

Time: Approx. 1 hour split up into 3 sessions

Session 1: Introduction and planning (10 min)

Resources required	Prior learning	Before the lesson
<ul style="list-style-type: none">• BBC micro:bits (for illustration only).• Getting started video on BBC Teach activity guide.• Playground survey glossary.	Maths/Geography <ul style="list-style-type: none">• Understanding what a survey is and what data is – information.	<ul style="list-style-type: none">• Gather all resources required.• Print and display playground survey class poster.

Session details:

1. Ask pupils to explain to their partner/group what a survey is – collect responses.
2. Define survey and ask pupils to make a note:
Collecting, recording and analysing data to answer questions.
3. Discuss some real-life examples (National Census, election polls, school council surveys etc).
4. Explain that your class will be conducting a survey of their school playground.
5. Watch the Getting started video together.
6. Clarify any new vocabulary – data scientist, biodiversity, machine learning – they will be explained in more detail later.
7. Have some micro:bits available to look at and discuss how they will use coding to make them work.

Session 2: Data privacy and security discussion (20 min)

Resources required	Prior learning	Before the lesson
<ul style="list-style-type: none">• Access to online BBC resources (see below).	Computing/ICT/PSHE/Technology <ul style="list-style-type: none">• Online safety – privacy and personal info.• Permission and consent for data use.	<ul style="list-style-type: none">• Distribute pupil worksheet.• Explore BBC Bitesize guides. Have chosen guides ready to share.

Session details:

1. Recap understanding of the word data – used to mean the same as ‘information’ but often refers to numbers.
2. Revisit the school’s preferred online safety rules and identify the ones that refer to data and/or information.
3. Remind pupils that personal information is information that could be used to identify someone, and it should be kept secure and private and not shared with strangers.
4. Discuss the meaning of the word anonymous – all personal information has been removed.
5. Explore and watch relevant BBC Bitesize guides (see resources below) and ask pupils to make notes.

Try anonymising their own data:

6. Share the pupil worksheet with the identity card templates.
Ask pupils to add a mixture of information that could / could not be used to identify them on the first identity card e.g., name, gender, DOB, age, hair colour, favourite colour, a picture of their face, postcode, teacher, year group, shoe size etc.
7. Then ask pupils to create an anonymised version on the second template with all personal information removed and compare the two.
8. Cut the pupil worksheets in half or fold them in half with the anonymised identity card facing up.
9. Jumble up the class identity cards and see if the anonymised cards can be used to identify other class members.

Sharing our data:

11. Discuss why we might want to share data we collect from our playground survey activities. What are the circumstances where we might want to share our data with external organisations? What type of organisations collect data? How would we find out more about these organisations before we decide to share our data? For example, looking at their official websites.
12. Discuss how any data we want to share can be anonymised and how this means that individuals can not be identified.
13. Remind pupils that the school evaluates websites for reliability before sharing any school data with them.

Online BBC resources:

BBC Bitesize - Online data

<https://www.bbc.co.uk/bitesize/topics/zv63d2p/articles/ztq6nk7>

BBC Bitesize - Online safety

<https://www.bbc.co.uk/bitesize/topics/zv63d2p/articles/zfmhfdm>

Session 3: Playground mapping (30 min)

Resources required	Prior learning	Before the lesson
<ul style="list-style-type: none">• Existing maps/blueprints/aerial view of the school playground.• Optional session extension• Printed copies of an OS map of the local area.• Clipboards and drawing materials.• Digital cameras/devices.• Compasses.	Geography/Humanities <ul style="list-style-type: none">• Use of maps to locate familiar locations.• Use of digital mapping tools. Optional session extension• Simple grid references.• Map symbols and keys.• Compass directions.	<ul style="list-style-type: none">• Take screenshot of the school using Google Maps aerial view or use an existing aerial view to show on whiteboard.

A simple outline map of the playground with fairly accurate dimensions will be enough to support the playground survey activities if you are short of time.

Session details:

1. Explain they are going to create their own outline plan/map of the playground to help with the playground survey data collection activities.
2. Ask them to individually draw a quick outline plan of the playground from memory – however they like – provide an A4 piece of paper and set a time limit – we suggest 10 minutes. This is to establish a baseline of mapping skills and knowledge of the playground.
3. Ask pupils to compare their quick maps with a partner – discuss similarities and differences.
4. As a class, look at the Google Maps or other existing aerial view of the school together on the whiteboard – identify the school buildings and playground boundaries.
5. Ask them to compare their drawings with the existing aerial view. Highlight if anything was left out.
6. Annotate the Google Maps or other existing aerial view with key features and labels - with whiteboard pen onto the screenshot if possible.
7. Print the annotated map and distribute to pairs or small groups.

Optional session extension: Playground fieldwork (extra 30 min)

Session details:

Fieldwork:

1. Explain that they are going to carry out some fieldwork – this means going to an area and taking notes, making drawings and sketches, taking photos etc.
2. Take small groups or the whole class into the playground and spend 10-15 minutes walking the perimeter, noting features, making notes, making sketches and taking photos.
Then provide pupils with a printed outline of the playground and ask them to explore further and create a map as they go – adding features to the outline map.
3. they go – adding features to the outline map.
4. Back in class, pupils can use their sketch maps, notes and photos etc to create more detailed maps – either individually or in groups using large sheets of paper. They can add their own symbols and a key.
5. Compare pupil maps with Google Maps or other existing aerial view on the whiteboard.
6. Pupils can add corrections in another colour, or to a photocopy.