LESSON 9

Designing our smart city pt. 3

Age 7-11
(Key Stages 2)

60 minutes

Curriculum links

Computing
- Select, use and combine a variety of software to design and create a range of content that accomplish given goals, including presenting data and information

Design & Technology
- Use research and develop design criteria to inform the design of products aimed at particular individuals or groups
- Generate, develop, model and communicate ideas through discussion and prototypes
- Evaluate their ideas and products against their own design criteria and consider the work of others to improve their work

Resources

Slideshow 9: Designing our smart city pt. 3

Student Sheet 9a: Communicating your ideas

Video: Communications and marketing

Subject Updates:
- Futures thinking
- About Oxbotica

Kit (per group)

- Student mBot prototype
- Laptop or tablet with mBlock

Lesson overview

In part three of the workshop each group will discuss different ways of sharing ideas then create articles, posters, videos, photo galleries or reports to persuade their audience that their prototypes are worth taking forward. Then each group will present their prototypes and demonstrate their ideas in action using the mBot as part of a working display.

Lesson steps

1. **Video opener (5 mins)**
   Communicating ideas, introducing the ideas of different audiences and different methods of communication.

2. **Classroom discussion (10 mins)**
   The class will discuss the video and link different methods of communication with the audiences they might reach.

3. **Design thinking: share (20 mins)**
   Each group will prepare their prototype project for a 'show and tell', including an explanation of the problem the prototype is solving, a demonstration and one example of how they would share their project beyond the class.

4. **Present and reflect (25 mins)**
   Each group will give a short 'show and tell' of their prototype to the class, including the thought process behind it. The class will then reflect on their learning and achievements across the whole unit of work.

Learning outcomes

- Understand why sharing ideas is important
- Name at least one job associated with communication

- Identify a variety of different media and describe when each might be used

- Plan and prepare a group presentation
- Select and create an appropriate way of sharing a project

- Present and explain a group project
- Share learning

Step

1
5 mins
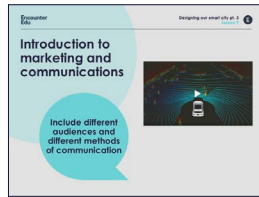
If you use formal learning outcomes with your class every lesson, the list on **slide 2** has been formulated to structure learning for this lesson. All learning outcomes are composed using the SWBAT (Students Will Be Able To) format.
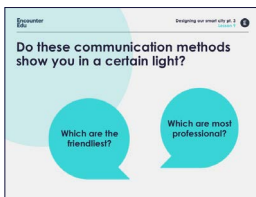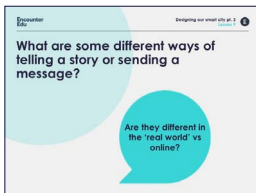
Using **slide 3** introduce students to the lesson where they are going to embark on their design challenge and use what they have learned to address societal needs.

Show your class the video **Communication and marketing**, which includes different audiences and different methods of communication

2
10 mins

Guide your class in a discussion of the three questions presented on slides 4-6. Consider using a think-pair-share structure for these three questions as well, with students listing possible answers on their own for four minutes before sharing in pairs for two minutes. The whole class discussion element would then take a further four minutes.

Manage a whole class discussion using the questions on **Slide 4-6.**

What are some different ways of telling a story or sending a message? **(Slide 4)**
· If needed, prompt with social media platforms, email, TV, radio, text, in person and adverts.
· Ensure the students understand the difference between digital and traditional media.

Are these communication methods best suited to certain people? **(Slide 5)**
· Consider different characteristics of people and the message, such as demographics and location.
· Encourage the class to come up with examples of typical people who might see a message in different places, such as mums visiting mumsnet, younger people using Snapchat or local people seeing a poster in a shop.

Do these communication methods show you in a certain light? What is appropriate for their project? **(Slide 6)**
· Ask your class to think about tone and how choosing to use different types of media will portray them.
· Highlight the difference between communicating with users of a service and enablers of a service, such as someone in local government who can approve it or a funder.

Step

Hand out **Student Sheet 9a** Communicating your ideas.

Explain that different forms of media serve different purposes. Your class should consider audience (who it reaches), reach (how many people it reaches), tone of different methods of communication, then think about the best ways of communicating with their target audience.

Student groups will decide on the best methods for reaching their target audience.


3
20 mins

Tell each group that they are going to use what they now know about communications to prepare their prototype project for a final 'show and tell'. They should include an explanation of the problem the prototype is solving, a description of who they are helping, a simple demonstration of their prototype and at least one example of how they would communicate their project to a target group.

Students should use the information on **slide 7** to guide the preparation of their show and tell presentation. Each group should give a short 'show and tell' of their prototype to the class, including the thought process behind it. If your class worked together as one team, ask them to present it to you as a character: perhaps a local resident or the mayor.

4
25 min
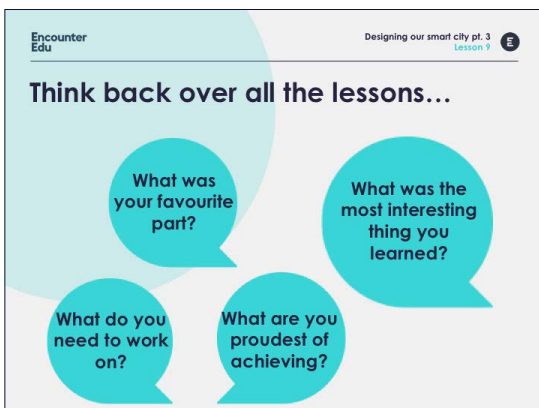
Finally, ask your class to reflect on their learning and achievements across the whole unit of work. You can use **slide 8** to guide the discussion.