# 'Helpful healthcare' scenario cards
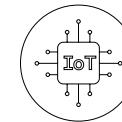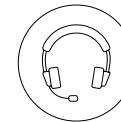
In your groups, read through each scenario and discuss the questions below.

- Who benefits from this technology and how?
- How is this technology an improvement on more traditional methods?

**Scenario 1:** Virtual reality (VR) can help people with autism during therapy sessions. Autism affects how people communicate, interact, and learn. Many people with autism feel anxious, lonely, and depressed because they struggle to connect with others. VR therapy provides a safe space to practice difficult real-world situations, like conversations or job interviews. This helps them learn to understand and respond to facial expressions, language, and tone of voice better.

**Scenario 2:** Healthcare professionals can now use AI and smart devices to keep track of their patients' health. For example, heart monitors with sensors can send data about a patient's heart rate to their doctor, who can then take action if needed. People with diabetes can have a small device in their arm that checks their glucose levels. If the levels get too low, the device sends an alert to an app, telling the patient to take urgent action, like an insulin shot. Some apps can even alert emergency services directly.

**Scenario 3:** 3D imaging allows doctors to visualise highly detailed images of the human body. This can be incredibly helpful before as it means that surgeons can explore different options for how to operate. During the surgery, they can use wearable vision technology to generate highly accurate digital images and other information that are tailored to the patient's body. This can improve the accuracy and effectiveness of their work in the operating theatre.

**Scenario 4:** People suffering from stress, anxiety, depression and addiction can download apps designed to help them care for their mental health. The apps include a range of resources, including advice on coping strategies, videos to help them mediate and develop breathing exercises, and help connect them directly to a healthcare professional. They can even schedule livestreamed sessions with therapists to get treatment and prescriptions. Information from these sessions can be sent to their local GP so that they can continue getting treatment at their local practice.

# Definition detectives
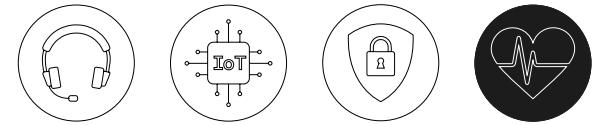
Read the following definitions and compare them to the terms shared on the slides. Can you match each description to the correct healthcare innovation? Discuss the answers with your class.

| Healthcare innovation | Healthcare innovation |
|---|---|
| Software that works by using a camera on our devices to allow us to and interact with digital information (text, images, animations) in our environment | |
| Machine technology that uses algorithms (instructional language for computers) to process, analyse and learn from information in a similar way to humans. It can process large amounts of complex data at speed. | |
| Virtual three-dimensional images which use light and laser beams to project 3D images into our real environment. | |
| Technology that creates a fully-immersive, simulated experience, using a headset with a 3D display which replaces our real environment with a digitised one. | |
| Technology which uses computer thinking to process and analyse visual data (e.g. Google Lens) | |

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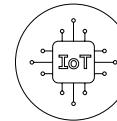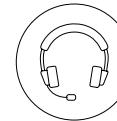
# Medical meanings

Read the following 'medical meanings' which outline how different technologies can help healthcare professionals to improve the accuracy, efficiency and effectiveness of their jobs.
Can you match each one to the correct medical innovation? Write the number in the correct column.

| 1. Camera vision | 2. AI | 3. Holograms | 4. AR | 5. VR |

| Technology number: | Technology number: | Technology number: | Technology number: | Technology number: |
|---|---|---|---|---|
| Provides doctors with 3D maps of patients' bodies and vital organs. This can help them prepare for operations by allowing them to visualise procedure and practise different ways of operating before doing it on the real patient. | Helps therapists to simulate different scenarios for patients with post-traumatic stress disorder (PTSD), allowing them to safely assess how they deal with potentially triggering situations. | Supports doctors to make more accurate diagnoses, predict when diseases will develop, figure out treatment plans. It can also support administrative assistants or receptionists to and manage demand for appointments and hospital beds. | Helps to detect illnesses, make early diagnoses and give real-time information that reduces complications during surgery. | Allows surgeons to get additional insights as they operate, improving the safety and effectiveness of the surgery. |

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# Bringing tech in Healthcare to life
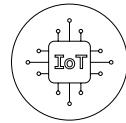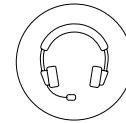
As part of your project brief, you're going to create a storyboard and script for a short animation that helps your peers understand different mental health issues that can affect them. It will also give them advice on how to deal with issues like stress and anxiety.

You should complete just one storyboard and script per team.

First, think about the following key details of your film and write them down here:

A storyboard involves creating a series of drawings, combined with dialogue (a script) and instructions on what is going to happen at each stage in a story. Designers, advertisers and creative developers will often use storyboards to plan out the content before turning it into film or visuals. A script provides the dialogue for the film – in other words, what each character has to say in order to tell a complete story.

**Where is it set?** (E.g. the classroom, somewhere else in school, at home, in the workplace)

**Who are the characters?** (Think about who your protagonist - the main character or hero - will be, as well as the supporting characters)

**What is the plot?** (Consider what will happen at the beginning, middle and end of your story)

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# Bringing tech in Healthcare to life
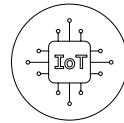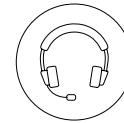
**What key information or messages do you want your film to get across?**

(You can also do research to make your film more informative and impactful e.g. stats about mental health, which issues are facing young people most today, what are some tried and tested techniques for coping with stress, anxiety etc.). Here are a few possible stating points:

- Mental health sections of news sites like the BBC

- Charities supporting young people with mental health advice and support, such as Young Minds, Place2Be and Mind

- The NHS's advice portal for children, teens and young adults' mental health

- Advice from global health organisations like WHO

Now it's time to plot out, draw and write your storyboards on the storyboarding template. Make sure you include enough description under each image to fully describe what's going on. You should also include the dialogue i.e. what each character is going to say. If you need more space for this, you can use the scripting template at the end of this document.
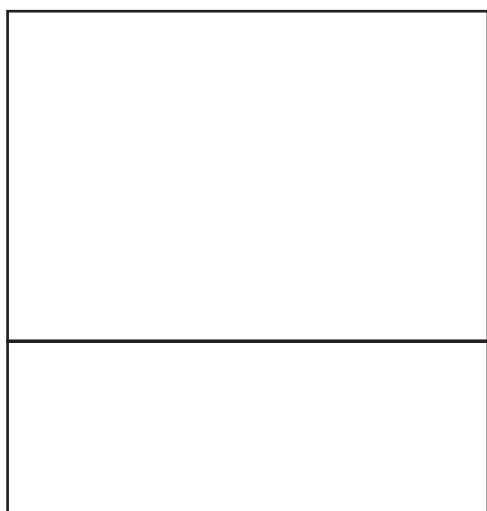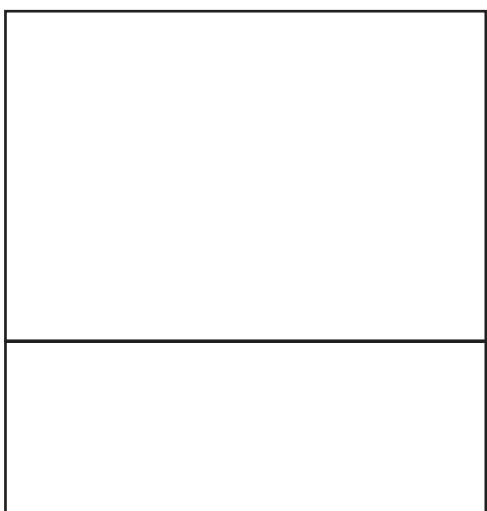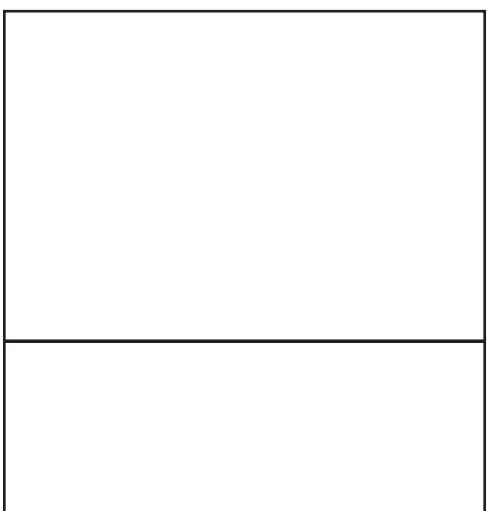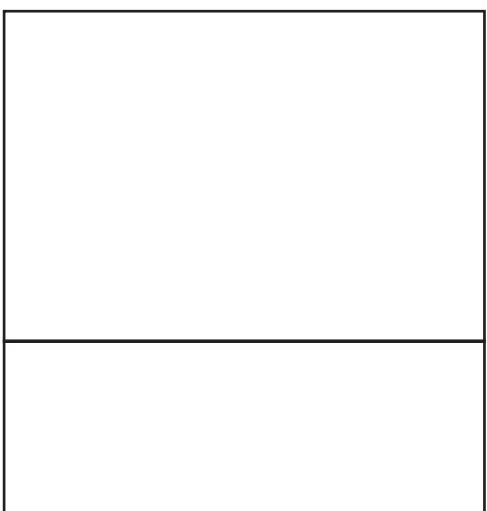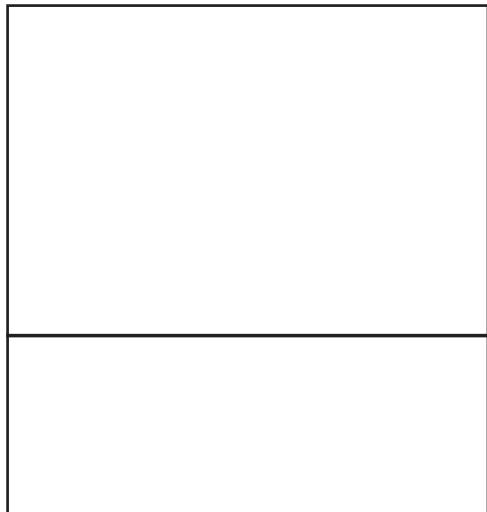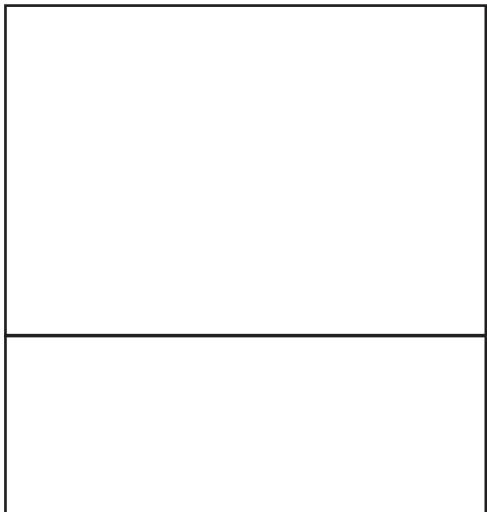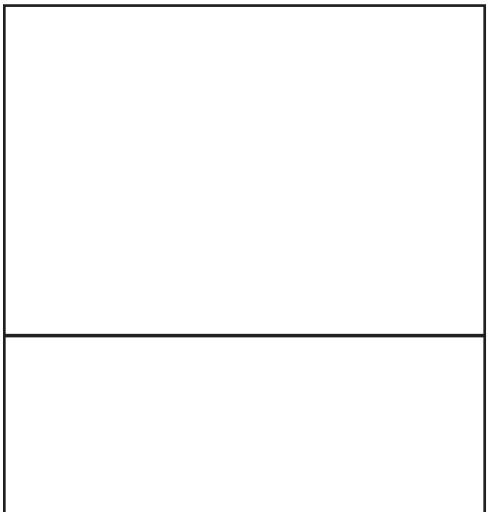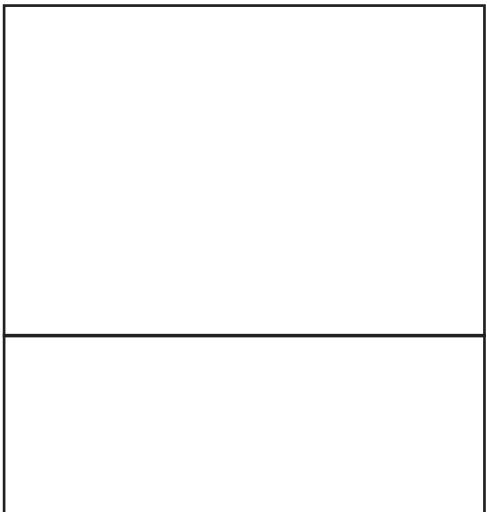
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# Bringing tech in Healthcare to life

# Bringing tech in Healthcare to life
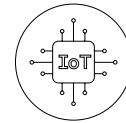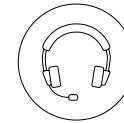
Use the following template to write a script which will accompany your storyboard. When writing a script, remember to introduce which character is speaking at the start of each new piece of dialogue.

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# Coping strategies

The cards on the next pages outline some different techniques and exercises that can help young people manage their emotions.

Choose a couple of these techniques to talk about in your animation, making sure to include:

- Practical step-by-step instructions and/or a demonstration on how to do them (make sure you don't simply copy and paste the text below)

- An overview of how these exercises can help with stress and anxiety e.g. what calming effect does it have on the body, how does it help to manage and organise our thought processes?

- Guidance on how to make the most of these exercises in the longer term e.g. putting aside a regular time to practise them, combining these practices with other factors like healthy eating etc.
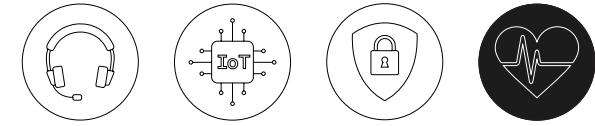
Remember that these techniques are designed to be practical, 'in the moment' ways to reduce stress and therefore help people manage their emotions on a day-to-day basis. They won't solve the issue, or necessarily treat the underlying problems; but they can help people better cope with negative emotions like stress. You may want to highlight this in your film or include some guidance on the other support that's out there, such as organisations like Mind and the NHS.

## Other ways to cope with stress

Aside from the four techniques in the cards, you may also want to outline some of the simple things we can do each day to feel less stressed:

- Doing things you enjoy or help you relax – this could be a hobby (such as sport, doing art, writing stories), or leisure activities like gaming, reading, or taking a bath. You could even combine this with one of the coping techniques – for example, meditating in the bath, creating an art piece that features your affirmations, decorating your journal or turning it into a creative story…

- Talking to others – this could be with a friend, parent, teacher or medical professional such as a therapist if you have one. Stress can feel quite isolating, so talking through your feelings with someone you trust can help you feel less alone and see it from a different point of view.

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# Coping strategies
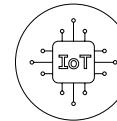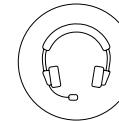
## Colour breathing

This technique uses colour association and deep breathing to help us alleviate stress in our mind and body.

**Instructions:**

1. Choose a colour that you associate with feeling calm and happy – this can be any colour you like.

2. Sit back and close your eyes. Start to bring attention to your breathing: take a deep breath in through your nose, hold it for 3-4 seconds, then breathe out through your mouth. Try to focus on breathing deeply into your belly, as though you're inflating and deflating a balloon. Every time other thoughts or sensations come to mind, gently notice them and bring your attention back to your breathing. Repeat this step a few times so that you get used to breathing in this way.

3. Now visualise your colour – this could be in the form of mist, light, or something that shares the same colour (green grass, a blue sky, yellow flowers etc.) Imagine this colour enveloping you.

4. As you breathe in, this time imagine that your colour is filling you up. As you breathe in, picture the colour going into your nose, down your throat, into your stomach and throughout the rest of your body.

5. Continue to breathe in this way, visualising your colour moving throughout your body and mind, until you feel calmer and more relaxed.

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# Bringing tech in Healthcare to life
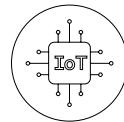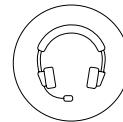
Now write down answers to the following questions (you should complete one table per team). This step is important as it will be used to revisit and evaluate the success of your film at the end of the next lesson.

| | |
|---|---|
| **How will your film meet the criteria set out in the project brief?** (Set 2-3 objectives for what you want your film to achieve e.g. what types of information will it need to provide? How will it meet the needs of your target audience?) | |
| **How will you divide up the different roles on your team?** (E.g. who will draw, write the script, research the ideas etc. – make sure all team members get a chance to try different tasks, especially when using digital tools to design their film)? | |
| **Where will your video be shown?** (E.g. in the school foyer, in PSHE lessons, on the school's social media etc.)? | |
| **How will you ensure that your film is relatable to your target audience, and also accessible for all?** (Consider the types of visual you'll use, the language and tone are appropriate for their target audience, and accessible for all? | |

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