

The Future Issue: Robotics

Introduction

Robots are a part of our society today. In small, but ever growing ways. The future of robots is even more mind-boggling. Questions are arising around how we use robots and artificial intelligence? What will robotics look like in the future? This plan will touch on what role robotics plays in our day-to-day life and what the future of robotics and AI could look like. By asking a 'big question', students will come to understand what role robots will play in our homes, communities and work life.

Setting the Scene

Write on the whiteboard or have up on your screen for the whole class to see, "What is a robot?" Discuss as a class, then send students to work in pairs or small groups to elaborate on that question. Allow all answers. As students are discussing the question, add new questions like, What things do you think robots can't do?, What famous pop culture robots do you know? What makes a robot a robot? Students may also have some questions. Come together to discuss their findings, just from their own knowledge.

Activities

Have pre-written slips of paper with phrases written on them (enough for pairs to work on) phrases like: defusing bombs, exploring space, assembling cars, bagging sweets, cleaning, assisting in surgery, picking fruit, interacting with students, caring for elderly, communicating with patients, catching criminals, reading maps, calculating, (you may need to repeat some phrases or make some up yourself) Have the pair of students brainstorm ideas on how a robot might carry out the task described on their slip of paper. Give them appropriate time discuss their ideas.

Each pair to report back to the class.

Ask: how might robots be better than humans at the task described? What drawbacks might there be in using robots in this application?

Pose a 'big question', "**What problems or challenges can robots help us solve in the world?**".

Share information on pages 8&9 of Extra! You can get small groups to focus on one part of each section, e.g robots and health-care, robots and war etc. Students can come up with some of their own challenges or problems, they can be as creative as they like.

Students can research the big question and present their findings in a medium of their choice. Short video, infographic, report, drawing with labels, poster, role-play, art, speech etc.

(check out the BBC documentary on the rise of the robots on youtube, it is in three parts and long but has some bits that you may want students to check out)

Achievement Objectives

Level 2/3

- Understand how people make choices to meet their needs and wants
- Understand how people make decisions about access to and use of resources.

Learning Intentions

Students will:

- gain understanding about robotics in our daily lives
- Explore opportunities where robotics or AI can benefit humanity

Success Criteria

Students can:

- discuss where robots are used in our daily lives
- work co-operatively to answer a big question about robots
- explain and present findings on how a robot can help solve a problem or challenge in the world

Resources

- www.odt.co.nz
- www.extraeducation.co.nz
- www.tki.org.nz
- [Youtube](https://www.youtube.com/)
- BBC Documentary - Hyper Evolution : Rise Of The Robots (Part 1) youtube clip 58 minutes (there are two other parts but they are 29 minutes long each)