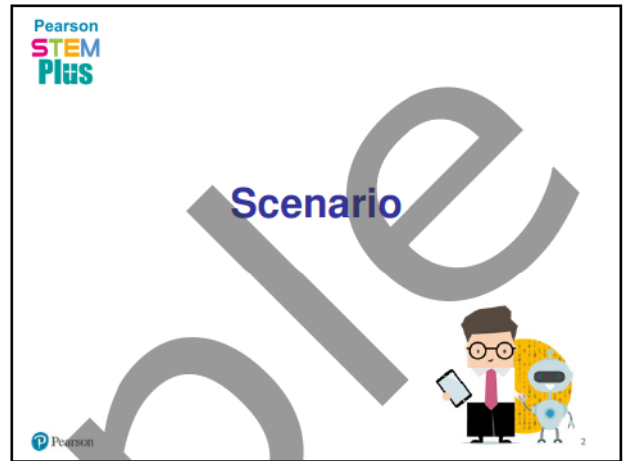




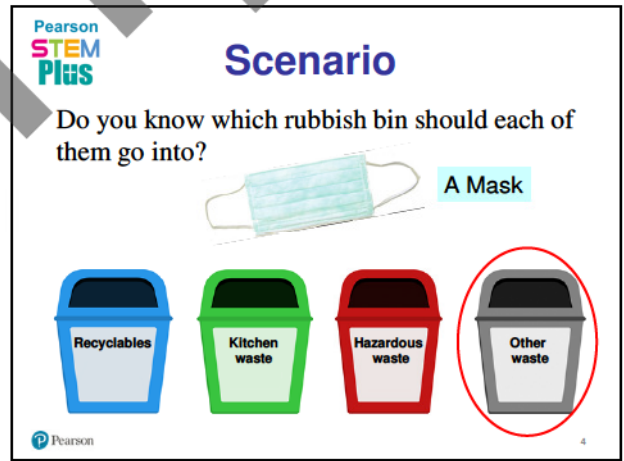
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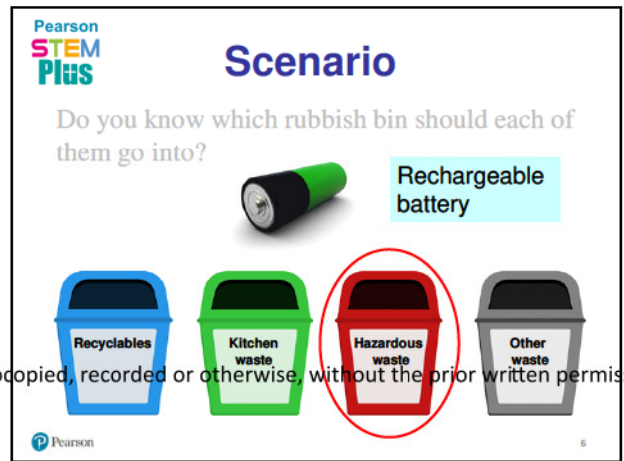
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6

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Pearson STEM Plus

Scenario

Do you know which rubbish bin should each of them go into?

Eggshell

Recyclables
Kitchen waste
Hazardous waste
Other waste

Pearson

7

Pearson STEM Plus

Scenario

It's so difficult to sort the wastes and put them into the right bins. What should I do?

Pearson

8

Pearson STEM Plus

Scenario

Hello! I am AIBIT. Let me help you! My built-in **object recognition** function can detect the kinds of wastes and tell you which bins you should put the wastes into.

Pearson

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Pearson STEM Plus

Scenario

Object recognition: These are old sneakers, which are **recyclables**. They should go into the blue bin ...

Pearson

10

Pearson STEM Plus

Scenario

How did you do this, AIBIT?

My function works when you write programs correctly. Now, let's learn how to build a waste classification system!

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Pearson STEM Plus

Objectives

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Pearson STEM Plus

Objectives

- Know the importance of waste classification, recycling and reuse;
- Know what artificial intelligence is;
- Understand the basic principles of object recognition;



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Pearson STEM Plus

Objectives


- Know how to design the flow of programs;
- Know how to use the AIBIT to control different circuit components;
- Know how to use artificial intelligence functions through programming;
- Know how to design smart products.

Pearson

14

Pearson STEM Plus

STEM elements




Pearson

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Pearson STEM Plus

STEM elements



Pearson

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Pearson STEM Plus

Suggested materials and tools

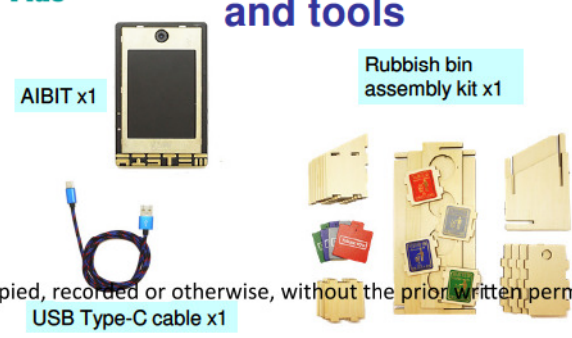


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Pearson STEM Plus

Suggested materials and tools



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Pearson STEM Plus **Suggested materials and tools**

Expansion board x1



Lithium battery x1



Servo x4



Male to female connecting wires



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Pearson STEM Plus **Suggested materials and tools**

Waste picture cards



Computer

Cross point screwdriver

Adhesive tools, e.g. a hot glue gun

Pearson 20

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