

LO To write an algorithm
(accurate sequence of instructions)
so that sandwich bot (Teacher) will
make a jam sandwich

To know that all computer programs are
series of accurate instructions

To know that we can refine and debug our
instructions in light of testing

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Adapted from an idea by Dan Gardner

GOLD

Write a full set of working instructions without using the word spread

SILVER

Write a full set of working instructions using the word spread

BRONZE

Write a partial set of instructions and work out what needed debugging

OBJECTS	ACTIONS	Press down	Back
Bread slice	Pick up	Hard	Right
Knife blade	Put down	Soft	Left
Knife handle	Unscrew	Fast	Hold
Jam jar	Remove	Slow	Drop
Jar lid	Cut	Turn	Raise
Butter lid	Spread	Top	Lower
Butter tub	Stop	Bottom	Scoop
Plate	Put	Repeat x times	Left Hand (LH)
Bread Packet	Hold	Forward	Right Hand (RH)

Teacher Help

- Pupils need to write a series of instructions that only use the words provided. Each command must contain a left or right hand indicator. With younger pupils you can demo making a sandwich but don't use the commands.
- Pupils need to be both challenged to be accurate and encouraged to refine and debug their instructions as a normal part of computing.
- As the robot be pedantic and petty. Do exactly what pupils tell you even if it involves putting your hand in the butter or jam.
- See the accompanying video to see common errors and examples that are correct. Don't show the videos to pupils.
- Having used this with Y4 & Y5 Pupils most pupils at this age are in the bronze category
- Pupils can split two word commands and use only one eg Jam or Jar
- If you have another adult in the class get them to be bots as well.