Computing Wednesday 01/04/20

WALT create a sequence of instructions for people to follow (an algorithm).
WALT find and correct errors in a sequence of instructions (debug an algorithm).

Yesterday we learnt that an **algorithm** is a precise set of instructions to get something done by creating crazy characters!

Today we are going to create an algorithm for people to follow to sing a song.

Watch this clip. Do you recognise the song?
https://www.youtube.com/watch?v=fvEtwhui1k0&t=20s

Can you sing the song and do the actions on your own?

I've put together an **algorithm** (a sequence of instructions) for you to follow to sing the song.

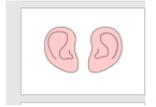Follow my **algorithm** to sing the song:
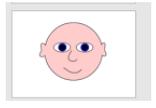
 shoulders

 toes

 heads

 and ears

 heads

 and ears

Is the sequence correct?! What is wrong with my **algorithm**?

The order of the body parts are wrong! Can you help me to fix them so they are in the correct order? This is called '**debugging'**.

Draw each of the body parts on a piece of paper and cut them out into cards.

Start by putting the body parts for the first line of the song in order from top to bottom (like a ladder).

Are any of the body parts repeated? You might need two of these body part cards.

Sing the first line, following your **algorithm,** to check you have the correct order. Great **debugging**!

What cards do you need to add for the second line of the song?

The second line is the same as the first line (it is **repeated**)! What instruction could you use instead of making a new set of cards?
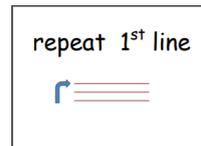
You could make a '**repeat**' card such as   .

This is an example of '**repetition**' and this makes instructions shorter and easier to understand.

Now put the last four body cards in the correct order. Remember to follow your **algorithm** so far to test it. Great **debugging**!

What instruction will you use for the last line of the song?

You could make a '**repeat first line**' card such as

Ask a parent, carer or sibling to follow your **algorithm**. Did they sing the song in the correct order? Did they repeat the correct lines?

Stick your cards, draw or write your **algorithm** in your purple book to show what you have learned.

Why don't you create your own version of 'Heads, Shoulders, Knees and Toes' by mixing up the order of the actions. Write an **algorithm** for someone to follow your new song.

Have fun!