

# Big Thursday Tasks

Week beginning 11.05.20

## Computer Science

You've been practising your coding skills over the past few weeks. Now it's time to think about some of the concepts of computer science.

### *Algorithms:*

What is an algorithm? An algorithm is a list of rules to follow in order to solve a problem.

Watch the video below:

<https://www.youtube.com/watch?v=Ct-IOOUqmyY>

As you can see in the video you need to be very clear and precise with your instructions if you want the computer to follow them correctly. You may have already noticed this in the past few weeks when you have been coding!

Choose a task from below to complete this week:

### **Cooking**



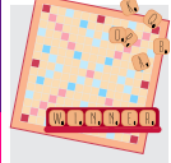
#### **Activity**

Make something to eat with your child. Can they draw or write the instructions (an algorithm) for someone else to follow to recreate the dish?

#### **Learning**

Algorithms are used in everyday life, such as recipes. It is just producing a set of instructions or rules which can be followed accurately.

### **My Amazing Game**



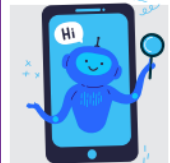
#### **Activity**

Ask your child to invent a game to play around the house and write out the rules (an algorithm). Play the game with them - do the rules explain everything about how to play? Can you find any loop holes in their rules?

#### **Learning**

Algorithms can be rules as well as a sequence of instructions. The rules need to be precise and specific.

### **Robotify Me**



#### **Activity**

Ask your child to write the instructions (an algorithm) for something they've done today. Would a robot version of themselves be able to follow this? Is their algorithm precise enough? Test it!

#### **Learning**

Here your child has written an algorithm. Algorithms are a precise sequence of instructions or set of rules for completing a task.

### **Timetable**



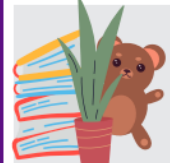
#### **Activity**

Ask your child to create a step-by-step timetable for tomorrow. What will they do first? Next? Then? Can they present their timetable in an easy to read format for others to follow?

#### **Learning**

Algorithms can be presented in different ways, here our timetable showing what we will do first, second, next is an algorithm.

### **Teddy Hunt**



#### **Activity**

Ask your child to hide their teddy/toy in another room in the house. Ask them to draw, write or speak the instructions (an algorithm) for someone to find it. They need to be precise with their instructions if they want their teddy found quickly!

#### **Learning**

This activity helps demonstrate why algorithms need to be precise. If they're not, the teddy won't be found!

## Outdoor learning/ STEM- Build a toy zip line

Your challenge this week is to build a zip line for your toys. You can do this indoors or outdoors- it's up to you!

You will need:

- string/washing line/rope/a tie
- a few small toys/Lego figures
- a paperclip or a trousers hanger
- timer

Instructions:

1. Attach one end of your string to something high up and attach the other end to something low down. Make sure your zip line is nice and tight- it shouldn't be loose.
2. Carefully unfold a paper clip and hook one end of it carefully onto your toy- maybe on a label if it has one. If you are using Lego figures check out this website for help. <https://littlebinsforlittlehands.com/lego-zip-line-homemade-toy-zip-line-kids/>
3. If you are using a slightly bigger toy you might want to use a clothes hanger. The other end if the paperclip or the top of the hanger will be used for sliding down the zip line.
4. Put your toy in place at the top end of your zip line and let it go!



Once you have made your zip line can you time how long it takes your toys to go from the top to the bottom? If your family have made zip lines too then you could race each other.

Now think about these questions- what happens if you make your zip line steeper? What happens if you make your zip line longer? What happens if you use a heavier or lighter toy? What happens if you use a different material/object for your zip line? How can you make your toys go faster or slower? What happens to your toys when they reach the end of the zip line?

Experiment with your zip line and change it up a bit as you think about some of these questions.

## Art around the world

This week we are travelling to France to learn about the artist Vincent van Gogh.



You can learn more about van Gogh and see some of his paintings here:

<https://www.tate.org.uk/kids/explore/who-is/who-vincent-van-gogh>

If you look closely at his paintings, you will notice the brushstrokes are broken up. It is as if you can see each time Van Gogh put his brush on the canvas.

**Task - Recreate this unique style of painting using the following online activity:**

<https://www.tate.org.uk/kids/games-quizzes/airbrush>

**You can either copy one of van Gogh's paintings or create your own in a similar style.**

If you can, take a screenshot and share your work on the blog. Can't wait to see your masterpieces!

## Music

Drumming lesson 4.

This week is the last week on drumming, although I will put up another couple of new rhythms next week for anyone who is enjoying it.

This week we are playing along to One Republic's song "Counting Stars".

There's another video demo in the dropbox link if you need it.

Would love to see some videos of your rhythm work!

