The suite of Technology Subjects

Student Challenges - 20th April

Applied Technology

Engineering

Graphics

Wood Technology

Applied Technology Challenges

CHALLENGE 3

Recently, extra shipments of personal protective equipment (PPE) arrived in Ireland from China. Some of this equipment can be reused if cleaned correctly.

Research how items can be sterilised for reuse. Design a method/process/device to sterilise this equipment before re-use by medical staff. Display your design and research in any appropriate format.

Links which might help in completing this challenge:

To find out more about PPE click here

How can schools support frontline medical staff? Click here to explore one way your school can help.

CHALLENGE 4

Products use a variety of smart technologies to improve our lives.

Identify one smart technology in your home.

Research how it works and how it improves our daily lives.

Present your research in any appropriate format.

Links which might help in completing this challenge:

For a look at a smart technology improving everyday life click here

Consider the positive and negative impact of smart technologies on our lives. Watch this video to help you form your opinion.

Engineering Challenges

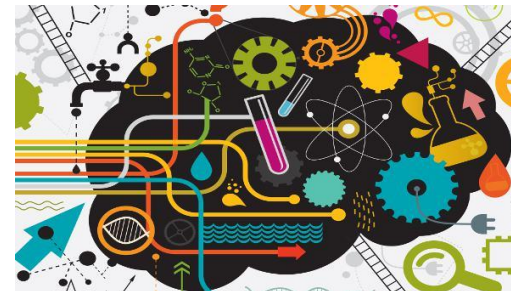## CHALLENGE 3

Virtual Field Trip: Ford Motor Company

Learn how customers' needs impact the design, engineering and testing of Ford F-Series trucks.

This video will bring students on a virtual tour of a Ford motor company design studio. The video is broken down into smaller sections so one area can be chosen as a focus.

Links which might help in completing this challenge:

There are two activities from the website that could be shared with students. They can be accessed through this link.

CHALLENGE 4

Inventors/Innovators

Research any Irish Inventor/Innovator.

Create a poster which outlines their contribution to society.
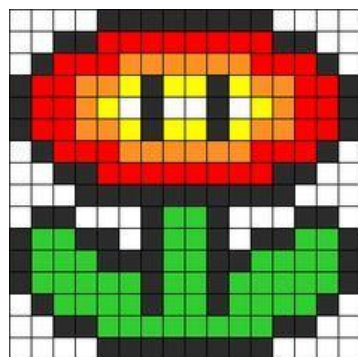
Links which might help in completing this challenge:

This 3 minute video will introduce students to the top 10 inventors of all time.

Graphics Challenges

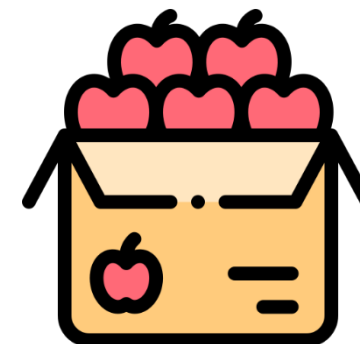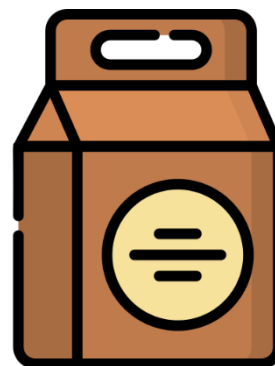## CHALLENGE 3

Create a pixelated object/scene of your choice.

Links which might help in completing this challenge:

The following websites can be used to create digital pixel art:

www.pixilart.com/draw

https://www.piskelapp.com/

CHALLENGE 4

Create packaging for an everyday item.
1. Use the least amount of material possible.
2. Add rendering to enhance the overall appearance of the packaging.

Links which might help in completing this challenge:

For some tips on effective packages, the following website gives some insights:

www.canva.com/learn/packaging-design/

Wood Technology Challenges

CHALLENGE 3

Wood in my home or garden

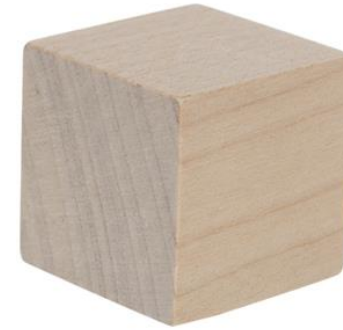Wood is often used to make both household and garden furniture.

Select an item of wooden furniture in your home or garden and create a sketch of it.

Suggest one design improvement you would like to make to this item of furniture.

Links which might help in completing this challenge:

For some sketching help click here

CHALLENGE 4

Design Challenge

Design a stand for your phone or tablet from a *single* block of wood like the one shown above.

Sketch your design ideas and create a model from cardboard or other suitable materials of your design(s).

Links which might help in completing this challenge:

Watch this video to help you with your design ideas.

This link will help you to create a model of your design

Technologies teachers …

These activities are designed and collated for teachers who may have to engage with remote teaching. These activities only offer, as a suggestion, some possible tasks which could be completed by students.

Teachers knowledge of their own students' context should inform their decision around which activities would best engage their students.

We would like to showcase student challenge responses each Friday on our JCt4 twitter page.

If you would like any of your student's responses featured, please send images of this work to the following JCt4 email: michael.lynch@jct.ie

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