



ST AIDAN'S

CATHOLIC PRIMARY SCHOOL

Learning and growing together, inspired by the love of Jesus

Computing

Year 1

Topics

- What is a computer?
- Animate with shapes
- Modern tales (online safety)
- Mini-Beasts
- My friend the robot

What is a computer?

National curriculum

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	What is a computer?
<u>2</u>	How well do you know technology?
<u>3</u>	Know how to follow a simple algorithm
<u>4</u>	Take a good quality photograph
<u>5</u>	Know how to communicate politely online

Key vocabulary

eMail Keyboard Mouse Monitor Data Printer Speakers DVD/CD CD-DVD Drive Camera Wireless Hard Drive Software Hardware QR Code Processor Send/Receive Sign-in Sequence Algorithm Debug Robot Program Sprite Instructions

Animate with shapes

National curriculum

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what a frame is
<u>2</u>	Know how to use the app Easy studio
<u>3</u>	Create an animation
<u>4</u>	Present the animation
<u>5</u>	

Key vocabulary

Communicate Digital Illustration Frame Share Icon Website Folder Files Save Edit Animation Still
Frame

Modern tales (Online safety)

National curriculum

Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Find information about others
<u>2</u>	Know what personal information is
<u>3</u>	Know what you can do online
<u>4</u>	Know what animation is
<u>5</u>	Use animation to tell a story

Key vocabulary

Internet QR Code Personal Information Follow Trust Online Risks Profile Avatar Private Password
Trusted adult Login Share Digital Communicate Icon Website Private Information Online rules Folder
Files Save Edit

Mini-Beasts

National curriculum

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what design means
<u>2</u>	Create a block graph
<u>3</u>	Know what keyword means
<u>4</u>	Use the internet to research
<u>5</u>	Create a video

Key vocabulary

Internet Information Online Mini-beast Communicate Self portrait Design Landscape Download
Digital Illustration Green screen Login Share Icon Website Folder Files Save Edit

My friend the robot

National curriculum

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what a robot is
<u>2</u>	Give a robot instructions
<u>3</u>	Program a robot
<u>4</u>	Know how to debug
<u>5</u>	Present work

Key vocabulary

Robot Design Algorithms Debugging QR code Instructions Sequencing Bugs App Sensors Software Hardware Processor Emoji Program Machines

News presenter

National curriculum

Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Write a news script
<u>2</u>	Type on a computer
<u>3</u>	Create video clips
<u>4</u>	Add special effects
<u>5</u>	Use a search engine to find news

Key vocabulary

News Keyboard Mouse Save Data Digital Website Link Photo Camera Video Document Software File Folder Communicate Send/Receive Sign-in Landscape Portrait Green Screen Effects Copyright Emoji Icon Tools Download Browser Keywords Search

Year 2

Topics

- Stop go animation
- Book creator
- Online Life
- Online buddies
- Presentation
- Coding

Stop go animation

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what a stop go animation is
<u>2</u>	Know how to take a photograph
<u>3</u>	Use a stop go animation app
<u>4</u>	Create a stop go animation
<u>5</u>	Present

Key vocabulary

Stop go animation present picture app

Book creator

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what book creator is</u>
<u>2</u>	<u>Add text and a picture</u>
<u>3</u>	<u>Edit my book creator</u>
<u>4</u>	<u>Create a full book</u>
<u>5</u>	<u>Present</u>

Key vocabulary

Book creator, present, edit, picture, text

My online life

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what trust online means</u>
<u>2</u>	<u>Know how to communicate online</u>
<u>3</u>	<u>Understand the term online bullying</u>
<u>4</u>	<u>Know how to behave online</u>
<u>5</u>	<u>Know how to be secure online</u>

Key vocabulary

Reputation Online Bullying Copyright Self Image Identity Trust Risks Profile Password Private Empathy

Online buddies

National curriculum

Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Communication online- what is it?
<u>2</u>	Who should we communicate with
<u>3</u>	Positive communication
<u>4</u>	Video communication online
<u>5</u>	Create a poster to show how we should communicate online

Key vocabulary

Reputation Online Bullying Copyright Communicate Self Image Identity Trust Digital Book Risks Profile Password Images Private Empathy Font Post Template Chat Behave WWW Username Software Browser Avatars Data Interact Scan Evaluation Facts Fictitious/Fake

Presentation

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what a presentation is
<u>2</u>	Add images to a presentation
<u>3</u>	Add a hyperlink to a presentation
<u>4</u>	Add an animation
<u>5</u>	Add a video

Key vocabulary

Template Presentation Chat Template Input Landscape Copyright Data Publish Download WWW
Publish Software Images Browser Evaluation

Coding

National curriculum

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what a coding block is
<u>2</u>	Know the repeat loop
<u>3</u>	Create a basic game using code
<u>4</u>	Create extra levels of the game
<u>5</u>	Present your game

Key vocabulary

Repeat Backdrop Program Loops Characters Code Sequence Debug Execute/Run Upload Backdrop Images Code

Year 3 topics

- Online detectives
- Be digitally awesome
- My online life
- Dancing robots
- Rainforests
- T-Shirt designer

Online detectives

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Use the web to authenticate facts</u>
<u>2</u>	<u>Use the web to identify places</u>
<u>3</u>	<u>Use the web to identify mystery people</u>
<u>4</u>	<u>Understand the term of online bullying and its consequences</u>
<u>5</u>	<u>Know if you can believe everything you read on the internet</u>
<u>6</u>	<u>Know who owns the information on the internet</u>

Key vocabulary

Facts Search Search Engine Images Information Authenticate

Be digitally awesome

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know the basics of technology
<u>2</u>	Know what apps to use
<u>3</u>	Use a browser
<u>4</u>	Create a document
<u>5</u>	Create a presentation
<u>6</u>	Create a spreadsheet

Key vocabulary

App Shortcut Presentation Application Browsers Word Processing Cloud Bookmark Multimedia File Copyright Hyperlink Folder Search Engine Formulae GigaByte URL MegaByte Font Digital Content Spreadsheet

My online life

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what an online identity is
<u>2</u>	How to build a positive online relationship
<u>3</u>	Create a positive reputation online
<u>4</u>	Know what I can do about online bullying
<u>5</u>	Know how to use accurate searching
<u>6</u>	Know the impacts of technology on your health

Key vocabulary

Reputation Online Bullying Copyright Self Image Identity Trust Risks Profile Password Private Empathy

Dancing robots

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>How do games and apps work?</u>
<u>2</u>	<u>Know what decomposition is</u>
<u>3</u>	<u>Sequence</u>
<u>4</u>	<u>Know what visual coding is</u>
<u>5</u>	<u>Know what a sprite is and create a send and receive command</u>
<u>6</u>	<u>Improve my coding</u>

Key vocabulary

Code / Coding Sequencing Screenshot Flow Diagram Journal Program Sprite Visual coding
Background Repeat Debugging Conditional App Broadcast Command Tablet Bugs Algorithm
Decomposition Screencasts Input

Rainforests

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what a 360 video is</u>
<u>2</u>	<u>Use google earth</u>
<u>3</u>	<u>Combine text, illustrations and music</u>
<u>4</u>	<u>Know about Googles advanced tools</u>
<u>5</u>	<u>Make a quiz game</u>
<u>6</u>	

Key vocabulary

360° video Virtual Reality Soundtrack Expedition Button Google Earth

T-Shirt designer

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what a brief and budget is</u>
<u>2</u>	<u>Create a mood board</u>
<u>3</u>	<u>Know your costs</u>
<u>4</u>	<u>Create digital art</u>
<u>5</u>	<u>Create a digital catalogue</u>
<u>6</u>	<u>Review my work</u>

Key vocabulary

Illustrator Copyright Design Designers Budget Digital Design Brief Profit Cost

Year 4 topics taught

- Hour of code
- Minecraft challenge
- My online life
- Real or fake
- Endangered species
- Dinosaurs

Hour of code

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what the hour of code is
<u>2</u>	Give instructions to a screen sprite
<u>3</u>	Use computing vocabulary
<u>4</u>	Use code to animate
<u>5</u>	Continue using code to animate
<u>6</u>	Continue using code to animate

Key vocabulary

Website Conditional Run Program Loop Command Block Sequence Sprite

Minecraft challenge

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know how to use minecraft
<u>2</u>	Use minecraft to complete the challenges
<u>3</u>	Use minecraft to complete the challenges
<u>4</u>	Collaborate to create digital content
<u>5</u>	Create a structure using a 3D app
<u>6</u>	

Key vocabulary

3D Griefing

My online life

National curriculum

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Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know your online identity
<u>2</u>	Control your online reputation
<u>3</u>	Building safe relationships online
<u>4</u>	Stop online bullies
<u>5</u>	Interpret online information
<u>6</u>	Ensure technology does not take over your life

Key vocabulary

Reputation Online Bullying Copyright Self Image Identity Trust Risks Profile Password Private

Real or fake

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what the term fake news means</u>
<u>2</u>	<u>Identify fake news</u>
<u>3</u>	<u>Know why people would share fake news</u>
<u>4</u>	<u>Identify fake news stories</u>
<u>5</u>	<u>Identify fake news stories</u>
<u>6</u>	<u>Present a real and a fake news story</u>

Key vocabulary

Fake News Reporting Skeptical Verify Media

Endangered species

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Create a digital book</u>
<u>2</u>	<u>Know how technology helps explore the world</u>
<u>3</u>	<u>How can I create great illustrations</u>
<u>4</u>	<u>Make a poster</u>
<u>5</u>	<u>Make a film</u>
<u>6</u>	

Key vocabulary

App Storyboard Application Scene Screencast Shot Screenshot Script Illustration Publish Audio
Hashtag Filters

Dinosaurs

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Master filming techniques</u>
<u>2</u>	<u>Add special effects to movie using green screen</u>
<u>3</u>	<u>Write a script and story board</u>
<u>4</u>	<u>make a film</u>
<u>5</u>	<u>make a film</u>
<u>6</u>	<u>make a film</u>

Key vocabulary

Shots Storyboard Scene Landscape Green screen Sound Audio Edit Clips

Year 5 topics taught

- Web designer
- STEAM challenges
- My online life
- Youtuber
- AR Games
- News Reporter

Web designer

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>How is technology changing the world?</u>
<u>2</u>	<u>Know what the internet is</u>
<u>3</u>	<u>Know what HTML is</u>
<u>4</u>	<u>Know what web content it</u>
<u>5</u>	<u>Know how to create a website</u>
<u>6</u>	<u>Know how to publish a website</u>
<u>7</u>	

Key vocabulary

Streaming Vlog Bit & bytes IP address YouTuber Pixel TCP/IP Bandwidth LAN ISP Services HTML
Infringe copyright Plagiarism Record Edit Upload

STEAM challenges

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what STEAM is
<u>2</u>	Use computational thinking to solve problems
<u>3</u>	Use computational thinking to solve problems
<u>4</u>	Use computational thinking to solve problems
<u>5</u>	Use computational thinking to solve problems
<u>6</u>	

Key vocabulary

STEAM Bit & Bytes Cache Peripheral Pixel USB

My online life

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	Know what their online life says about them
<u>2</u>	Know what an online community is
<u>3</u>	Know what judgements people make about people online
<u>4</u>	Protect yourself from online bullies
<u>5</u>	The impact of technology on sleep
<u>6</u>	Being secure online

Key vocabulary

Reputation Online Bullying Copyright Self Image Identity Trust Risks Profile Password Private

Youtuber

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what a youtuber is</u>
<u>2</u>	<u>Know how youtubers make money</u>
<u>3</u>	<u>What happens if youtube goes wrong</u>
<u>4</u>	<u>Create a vlog</u>
<u>5</u>	<u>Edit a video</u>
<u>6</u>	<u>Improve a vlog</u>

Key vocabulary

Vlog YouTuber Product Placement Online Bullying Transitions Record Edit Content

AR Games

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what AR is</u>
<u>2</u>	<u>Use QR codes to make a game</u>
<u>3</u>	<u>Use computational thinking to solve a problem</u>
<u>4</u>	<u>Design an AR game</u>
<u>5</u>	<u>Make your own AR game</u>
<u>6</u>	

Key vocabulary

Augmented Reality Download Artificial Reality QR Code Trigger Image

News reporter

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what a podcast is</u>
<u>2</u>	<u>Know what a script is</u>
<u>3</u>	<u>Record a podcast</u>
<u>4</u>	<u>Present their podcast</u>
<u>5</u>	
<u>6</u>	

Key vocabulary

Year 6 topics taught

- Crossy roads
- Coding playgrounds
- My online life
- Online safety dilemma
- Quiz show host
- VR worlds

Crossy roads

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<ul style="list-style-type: none">• <u>Know what coding and decomposition is</u>
<u>2</u>	<ul style="list-style-type: none">• <u>Key vocabulary for coding</u>
<u>3</u>	<ul style="list-style-type: none">• <u>Know how games are made using coding</u>
<u>4</u>	<ul style="list-style-type: none">• <u>What extra elements can we add to our game?</u>
<u>5</u>	<ul style="list-style-type: none">• <u>Share the game</u>
<u>6</u>	<ul style="list-style-type: none">•

Key vocabulary

Coding Decompose Command Loop Variable Publish

Coding playgrounds

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<ul style="list-style-type: none">• <u>Understand the impact of technology</u>
<u>2</u>	<ul style="list-style-type: none">• <u>Know who makes apps</u>
<u>3</u>	<ul style="list-style-type: none">• <u>Text based coding for an app</u>
<u>4</u>	<ul style="list-style-type: none">• <u>Make a storyboard</u>
<u>5</u>	<ul style="list-style-type: none">• <u>Create a prototype</u>
<u>6</u>	<ul style="list-style-type: none">• <u>Present your app</u>

Key vocabulary

App Developers Visual coding Android Mobile Program Cloud Prototypes Logo Design Content Bugs
Feedback Functions Commands For loop

My online life

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<ul style="list-style-type: none">• <u>How does the internet shape our views?</u>
<u>2</u>	<ul style="list-style-type: none">• <u>Being a good digital citizen</u>
<u>3</u>	<ul style="list-style-type: none">• <u>How to deal with online bullying</u>
<u>4</u>	<ul style="list-style-type: none">• <u>Making an informed decision online</u>
<u>5</u>	<ul style="list-style-type: none">• <u>Technologies impact on our health</u>
<u>6</u>	<ul style="list-style-type: none">• <u>How secure are you online?</u>

Key vocabulary

Reputation Online Bullying Copyright Self Image Identity Trust Risks Profile Password Private Empathy

Online safety dilemmas

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Understand how to communicate</u>
<u>2</u>	<u>Online language</u>
<u>3</u>	<u>Overcoming difficult situations</u>
<u>4</u>	<u>Make the internet a better place</u>
<u>5</u>	<u>Make a film</u>
<u>6</u>	

Key vocabulary

Communicate Phishing Exclusion Storyboard Shots

Quiz show host

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what a quiz is</u>
<u>2</u>	<u>Know what makes a good quiz question</u>
<u>3</u>	<u>Create an online quiz</u>
<u>4</u>	<u>Share an online quiz</u>
<u>5</u>	
<u>6</u>	

Key vocabulary

Username

VR worlds

National curriculum

Sequence of lessons

<u>Lesson</u>	<u>Objective</u>
<u>1</u>	<u>Know what VR is</u>
<u>2</u>	<u>What is an online account?</u>
<u>3</u>	<u>Create scenes for a VR world</u>
<u>4</u>	<u>Record a script for a VR world</u>
<u>5</u>	<u>View a VR world</u>
<u>6</u>	<u>Present and feedback</u>

Key vocabulary

VR Server Visual coding Z-Axis MP3 Cloud Password Virtual world Story Map