Year 7 Computer Science

CARDINAL NEWMAN CATHOLIC SCHOOL

AUTUMN 1:1

7.0 Introduction to the Newman system
In the first week students will be given an induction on the school's computer system. This will include how to login, access emails and navigate their online classroom.

AUTUMN 1:2

7.1 E-Safety
In this topic students will learn how to use computers safely and conduct themselves appropriately when online. Lessons will include; online privacy, the uses of social media, cyberbullying, artificial intelligence, how to stay safe online, and how to identify fake news.

PITSTOP Assessment

SPRING 2:1

7.2 Hardware & Software
We all use computing devices daily, but what classifies as a computer? This topic teaches students all about computer systems, including; what is the difference between hardware & software, what are the key hardware components required in a computer system, what is meant by system & application software, the need for memory & storage and the categorisation and need for peripheral devices.

SPRING 2:2

7.3 Pre-Production Techniques
Throughout our key stage 3, 4 & 5 journey students are required to 'plan' stages of a project, whether this be digital graphics in year 8, interactive products in year 10 iMedia or the A-Level computing project in years 12 and 13. This topic teaches students the skills required to successfully produce a robust/professional plan that meets a given scenario. Lessons include; research methods, mood boards, sketches & wireframes, the use of layout & colour, Gantt charts and contingency plans.

PITSTOP Assessment

SUMMER 3:1

7.4 Introduction to Programming: Kodu Lab
The ability to write programming code is essential in computer science, therefore in year 7 we introduce students to programming using an engaging program called Kodu Lab. Students will learn about the key terms; algorithm, variables, objects and environment through lessons covering; character paths & enemies, scoring & timers and collectable items. Students have the opportunity to demonstrate prior knowledge when they produce pre-production documents when designing their final program.

SPRING Assessment

SUMMER 3:2

7.5 Computing Pioneers
The technology we have today is a result of many remarkable people and their creations. This topic focusses on four pioneers who each played their part in the growth of computing. Students will learn about Alan Turing; how to use different encryption methods, Charles Babbage; how to solve problems using logic, George Boole; the use of the AND, OR, NOT logic gates, and Sir Tim Berners-Lee who created the world's first webpage.

SUMMER Assessment

7.6 Mobile Applications
In this topic students will learn event-driven programming while creating a mobile application. Following on from topic 7.4 these lessons will introduce students to more key terms and programming skills such as; properties, events, debugging, if statements and user input.

OUR LEARNING JOURNEY

Year 8 Computer Science

CARDINAL NEWMAN CATHOLIC SCHOOL

SUMMER
3:2

8.6 Multimedia – Digital Graphics
This topic has direct links to our KS4 Creative iMedia course and gives students the skills required to repurpose assets using image editing software. Lessons include; basic Photoshop skills, what are layers and masks? Colour correction, special effects and how to correctly export images while choosing appropriate image file types.

Assessment

8.5 Data Representation
How is data represented inside a computer system? In this topic students will build on their knowledge from topic 8.3 where they learnt that the CPU processes data in a binary format (0s and 1s). Lessons will include; what a 'base 2' number system is, how to convert between binary & denary, how text, images & sound are represented in binary and how files are compressed to aid transmission and storage.

SUMMER
3:1

PITSTOP Assessment

8.4 Python Programming
The ability to use a text-based programming language is an essential skill for computer science students. Python is a professionally used programming language, widely used in industry. Lessons in this topic include; how to effectively use algorithms, how to use an IDE and the features included that help programmers i.e. commenting/debugging, how to produce code to allow users to enter inputs and see outputs, what different data types we use, and how to use selection (IF, ELIF, ELSE).

SPRING Assessment

SPRING
2:2

PITSTOP Assessment

8.3 Computational Thinking
Building our understanding from topic 7.2 in year 7, it is in this topic where students will really begin to grasp how exactly a computer works, and that the term 'computer' relates to any modern device such as a mobile phone, tablet or games console. Lessons in this topic will cover; systems architecture (what is the function of a CPU?), the function and difference between memory & storage (including virtual and cloud storage) and embedded systems.

SPRING
2:1

8.2 Creating websites using HTML & CSS
Web technology is a key feature in the exam content for those students who choose computer science or iMedia at key stage 4. In this topic students will demonstrate the skills required create a website. They will learn to code the structure and content of a webpage using HTML before adding design and colour elements using CSS.

AUTUMN
1:2

PITSTOP Assessment

8.1 Computer Networks
We live in an online world where are devices are connected not only to each other, but globally. What is a Network? In this topic students will understand the different types of networks and how they are created' Lessons in this topic include; What makes a Network? What is a LAN/WAN?, network hardware, common network threats, security methods and 'The Internet of Everything'.

AUTUMN
1:1

OUR LEARNING JOURNEY

Year 9 Computer Science

CARDINAL NEWMAN CATHOLIC SCHOOL

AUTUMN 1:1

9.1 Cybersecurity

It is essential for students of this age group to understand what is meant by 'data' and where they input their personal data online. What are the threats involved? Who has access to your data? This topic will equip students with the knowledge to make the correct choices when using online platforms and be aware of the risks involved. Lessons include; What data is and what laws protect it, social engineering techniques, the different forms of computer attacks, computer malware, and how to prevent attacks using appropriate security methods.

AUTUMN 1:2

9.2 Multimedia - Video Creation

Building on from topic 8.6 in year 8, students will continue preparing for KS4 if they choose Creative iMedia by studying this topic in video editing. Lessons will include the skills required to; use composition & colour, adjust pacing, use transitions, understand the use of sound and how to 'sync', and use colour grading.

PITSTOP Assessment

SPRING 2:1

9.3 Python Programming

Students will recap their knowledge from topic 8.4 in year 8 where they learnt the basics of using Python. In this series of lessons students will learn to use all 3 programming constructs required at GCSE level; sequence, selection and iteration. Students will demonstrate these skills by being issued a range of 'programming problems' in which they have to plan, code and test their solutions.

PITSTOP Assessment

SPRING 2:2

9.4 Multimedia – Animation

Our final multimedia topic is creating computer animation, following on from creating digital graphics in topic 8.6 in year 8 and creating video earlier this year in topic 9.2. This topic covers a variety of skills that students will learn to create an animation, including; how to move, rotate & scale objects, adjust frames and movement paths, create complex models and how to adjust the light and camera options.

SPRING Assessment

SUMMER 3:1

9.5 Ethical & Legal issues with technology

This topic has a direct link to the GCSE computer science specification and gives students knowledge in the current issues we face when using technology. Students will learn about what ethics and ethical reasoning are, the legal issues surrounding technology, and the implications of the emergence of AI impacts us at school, work and in society.

PITSTOP Assessment

SUMMER 3:2

9.6 Summer Project

Students will be given a scenario (based on past iMedia exam content), they will have to demonstrate a variety of skills learnt across KS3 to create a portfolio of evidence. Evidence will include; pre-production documents to show substantial planning, a variety of digital content (image, video, animation) and a review/evaluation of their final product.

SUMMER Assessment

OUR LEARNING JOURNEY

Year 10 Level 1/2 Creative iMedia

CARDINAL NEWMAN CATHOLIC SCHOOL

R097 Interactive digital media - Mock assessment (coursework)
The technical skills required to complete coursework are the same across both components. Therefore, students will spend the summer term completing another mock assessment to prepare them for year 11, this time using a previous academic year's scenario for unit R097.

SUMMER 3:2

R093 Creative iMedia in the media industry
The final 2 topic areas to cover for the exam content are;
1. **Pre-production planning** (components of workplans, document formats i.e. to help gather ideas and to help design, and the legal issues that affect media)
2. **Distribution considerations** (Types of platform, and properties and formats of media files)

SUMMER 3:1

R093 Creative iMedia in the media industry
This topic covers the theory content students are required to learn for their written exam in year 11. By beginning the content in year 10 the students will gain a good base-knowledge before the content is covered again in year 11 with a more exam focus. There are 4 topic areas the two to cover this half-term are;
1. **The media industry** (industry sectors & job roles)
2. **Factors influencing product design** (how style, content and layout are linked to purpose, client requirements, audience demographics, research methods, and media codes)

SPRING 2:2

R094 Visual Identity and digital graphics Assessment (coursework)
Students will be given allocated time to complete the current assessment brief issued by the exam board.

SPRING 2:1

R094 Visual Identity and digital graphics - Mock assessment (coursework)
Students will use a previous academic year's component brief to produce a portfolio of evidence to meet the given scenario. This allows students to use the skills learnt in the Autumn term and produce a portfolio of evidence to be assessed, which ensures they know the requirements of the tasks, and assessment procedures for their real assessment next term.

AUTUMN 1:2

R094 Visual Identity and digital graphics
Identity is a vital components of any business, product or brand. In this unit students will learn how to develop visual identities for clients. The topic areas of study are;
Develop visual identity - students will learn about the purpose, elements and design aspects of visual identity. This content includes aspects such as; components – logo/strapline, elements – graphics (shapes/symbols), colour palette and mixing, and typography.
Plan digital graphics for products – students will learn about the concepts of graphic design; alignment, typography, use of colour and colour systems, use of white space, the different layout conventions; headlines, image content and titles & mastheads, the properties of digital graphics and use of assets and the techniques used to plan visual identity and digital graphics; mood board, mind map, concept sketch and visualisation diagram.
Create visual identity and digital graphics – students will use the tools and techniques available in image editing software to create digital graphics. In this area they will be required to source assets, repurpose images, store in appropriate folder structures and export using suitable file types.

AUTUMN 1:1

OUR LEARNING JOURNEY

Year 11 Level 1/2 Creative iMedia

OCR
RECOGNISING ACHIEVEMENT

CARDINAL NEWMAN CATHOLIC SCHOOL

SUMMER 3:2

EXAM!

SUMMER 3:1

EXAM PREPARATION

SPRING 2:2

R093 Creative iMedia in the media industry

Students have this term to prepare for the written assessment in June. The content was covered in year 10, this time the content will be delivered with a specific exam focus. Students will use past exam papers to practise answering exam questions and use the mark schemes to self-assess their work. As a department we will use our knowledge of previous exams to create a 'prediction paper' for the students to attempt before they sit the final exam.

MOCK EXAM

SPRING 2:1

Assessment

R097 Interactive digital media Assessment (coursework)

Students will be given allocated time to complete the current assessment brief issued by the exam board.

AUTUMN 1:2

R097 Interactive digital media

Interactive digital media products are found across the media industry, in games, websites and apps, learning and knowledge-based systems, simulations and in commerce. In this unit students will learn to design and create interactive digital media products for chosen platforms. The topic areas of study are;

Plan interactive digital media - students will learn about the different types of interactive digital media, the content they include, the types of hardware used, the resources required to create digital media and the pre-production and planning documentation.

Create interactive digital media - students have already required the skills required to create/edit/export digital assets in R094, they will adapt these skills to be appropriate for the interactive product the scenario asks them to create.

Review interactive digital media - students will use techniques to test/check their product before writing an in-depth review identifying improvements and future developments.

AUTUMN 1:1

OUR LEARNING JOURNEY

Year 10 GCSE Computer Science

OCR
RECOGNISING ACHIEVEMENT

CARDINAL NEWMAN CATHOLIC SCHOOL

2.4 Boolean Logic

In the Boolean logic topic students are required to understand, draw, and explain the rules (using truth tables) of the AND, OR and NOT gates. They will also be able to interpret logic diagrams and expressions given to them in either an equation or scenario.

MOCK EXAM

SUMMER 3:2

PITSTOP Assessment

1.6 Ethical, legal, cultural and environmental impacts of digital technology

Technology introduces ethical, legal, cultural, environmental and privacy issues in today's society, students learnt about ethical and legal issues in year 9, this topic will cover the content in greater depth.

Students will be able to discuss in relation to a given scenario; ethical, legal, cultural, environmental and privacy issues. They are also required to have an understanding of the current legislation that is relevant to computer science; The Data Protection Act (GDPR 2018), Computer Misuse Act (1990), Copyright, Designs and Patents Act 1988 and Software licences (i.e. open-source and proprietary).

1.5 System Software

Students will have a grasp on the different systems software from topics studied in KS3. At GCSE level we will cover this topic in greater depth. Students are required to be able to describe the purpose & functionality of operating systems including their main roles; provide a user interface, memory management & multitasking, peripheral management & drivers, user management and file management. Students will also learn the purpose and need for a computer system to run utility software that includes; encryption, defragmentation and compression software.

SPRING Assessment

SUMMER 3:1

PITSTOP Assessment

SPRING 2:2

PITSTOP Assessment

1.4 Network Security

This topic also build on lots of knowledge students would have gained in KS3, students will learn in detail the different forms of attack, and how to identify and prevent vulnerabilities. Lessons in this topic will include the following content; forms of attack – malware, social engineering (phishing, peaople as the 'weak' point), brute-force attacks, DoS, data interception & theft, the concepts of SQL injection, penetration testing, anti-malware software, firewalls, user access levels, passwords, encryption and physical security.

PITSTOP Assessment

SPRING 2:1

1.3 Computer Networks

In this topic students will build on the knowledge they required in KS3. They will learn in more detail the types of network (LAN & WAN) we use and be able to discuss the factors that affect the performance of networks including their topologies. Students will be able to explain the different roles of computers in a client-server and peer-to-peer network including the different hardware components required to set up the networks. Other lessons include; the Internet as a worldwide collection of networks, the DNS, cloud services, web servers & clients, modes of connection (wired/wireless), encryption, IP & MAC addressing, standards, protocols and the concept of network layers.

AUTUMN 1:2

PITSTOP Assessment

1.2 Memory and storage

Primary storage (memory) - in the first part of this topic students will learn the key terminology and differences between memory and storage. Students will be able to explain the need for primary memory and the purpose of ROM, RAM & virtual memory in a computer system. *Secondary storage* – students will be able to explain the need for secondary storage in a computer system and discuss the different options users have when choosing an appropriate type of storage medium (magnetic, solid-state, optical). Students will also be able to discuss the advantages and disadvantages of storage mediums while evaluating different characteristics such as capacity, speed and cost. *Units* – Students are required to understand that all data is processed as binary and the different units of measurement we use. *Data storage* – Students will learn how to convert between the denary, binary and hexadecimal number systems, add two 8-bit binary numbers together, and perform binary shifts. Students will also be able to explain how text, images and sound are represented in binary, and how compression is used to transmit and store data.

PITSTOP Assessment

1.1 Systems Architecture

In this topic students will learn about the architecture of the CPU. Lessons will include; the purpose of the CPU (fetch-decode-execute cycle), the common CPU components and their function (ALU, CU, cache, registers), the Von Neumann architecture (MAR, ADR, program counter, accumulator), the common characteristics which affect performance and embedded systems.

AUTUMN 1:1

OUR LEARNING JOURNEY

Year 11 GCSE Computer Science

OCR
RECOGNISING ACHIEVEMENT

CARDINAL NEWMAN CATHOLIC SCHOOL

SUMMER 3:2

EXAM!

SUMMER 3:1

EXAM PREPARATION

SPRING 2:2

MOCK EXAM

SPRING 2:1

PITSTOP Assessment

AUTUMN 1:2

MOCK EXAM

AUTUMN 1:1

PITSTOP Assessment

PITSTOP Assessment

Term 2 Component 1 recap

Lessons in this term will also revist the following topics.

- 1.4 Network security
- 1.5 Systems software
- 1.6 Ethical, Legal, Cultural & Environmental impacts

These lessons will have an exam focus, we will recap the knowledge from year 10 and use past paper and revision questions to prepare for the summer exams.

2.5 Programming Languages & IDEs

In this topic students will learn about programming language characteristics and the different levels of language. This includes; the purpose of translators, the characteristics of compilers and interpreters, and the common tools and facilities available in an integrated development environment (IDE).

2.3 Producing Robust programs

In this topic students will learn how to use defensive design techniques to help produce robust programs. This includes; anticipating misuse, input validation and using maintainability techniques. The students also need to learn the importance and need for testing. This includes the different types of testing, identifying syntax & logic errors, and selecting and using suitable test data.

Term 1 Component 1 recap

Lessons in this term will also revist the following topics.

- 1.1 Systems architecture
- 1.2 Memory & storage
- 1.3 Networks

These lessons will have an exam focus, we will recap the knowledge from year 10 and use past paper and revision questions to prepare for the summer exams.

2.2 Programming fundamentals

Programming fundamentals – In this topic students will be able to produce/refine programs using variables, constants, operators, inputs, outputs and assignments. They will use the three basic programming constructs used to control the flow of a program; sequence, selection and iteration. *Data types* – Students will be able to define and give examples of the common data tyoes; integer, real, boolean, character, string and understand the process of casting. Students will also be required to perform a number of additional programming techniques, such as; file handling (open, read, write, close), string manipulation, arrays (1D and 2D), how to use sub-programs and random number generation.

2.1 Algorithms

Computation thinking – Students will be able to explain the principles of computational thinking, including; abstraction, decomposition and algorithmic thinking. *Designing, creating and refining algorithms* – In this topic students will learn how to either plan, create and adapt programming code. They will be able to produce pseudocode and flowcharts to plan code whilst identifying comment errors. *Searching and sorting algorithms* – Students will learn how the standard algorithms work for searching data (binary and linear search) and sorting data (bubble, merge and insertion sort).

OUR LEARNING JOURNEY

Year 12 A-Level Computer Science

OCR
RECOGNISING ACHIEVEMENT

CARDINAL NEWMAN CATHOLIC SCHOOL

Component 1 content

1.5.2 Moral and ethical issues – The individual moral, social and cultural opportunities and risks of technology. ***1.2.1 Systems software*** – b) memory management (paging, segmentation & virtual memory), c) interupts, d) scheduling. ***1.4.3 Boolean Algebra*** – e) D-type flip-flops, half & full adders.

Component 3 content

3.3 Developing the solution

3.3.1 – Iterative development process

3.3.2 – Testing to inform development

SUMMER 3:2

MOCK EXAM

PITSTOP Assessment

Component 1 content

1.3.1 Compression, encryption and hashing – a) lossy vs lossless compression, b) run length-encoding and dictionary coding, c) symmetric and asymmetric encryption, d) different uses of hashing. ***1.3.3 Networks*** – a) characteristics of networks, protocols and standards, b) the Internet structure, packet & circuit switching, c) security & threats, d) hardware, e) server & client-side processing. ***1.3.4 Web technologies*** - a) HTML, CSS & Javascript, b) search engine indexing, c) pagerank algorithm. *1.5.1 Computer related legislation* – a) data protection act, b) computer misuse act, c) copyright, designs & patents act, d) regulatory of investigatory powers act.

Component 3 content

3.2 Design

3.2.1 – Decompose the problem

3.2.2 – Describe the solution

3.2.3 – Describe the approach to testing

Component 3 content

3.1 Analysis

3.1.1 – Problem identification

3.1.2 – Stakeholders

3.1.3 – Research the problem

3.1.4 – Specifiy the proposed solution

SPRING Assessment

Component 2 content

2.2.1 Programming techniques – c) global & local variables, d) modularity, functions & procedures, e) use an IDE to develop/debug a program. ***2.1.3 Thinking procedurally*** – a) identify components of a problem, b) identitfy the components of a solution, c) determine the order of steps to take, d) identify required sub-procedures. ***2.1.1 Thinking abstractly*** – a) nature of abstraction, b) need for abstraction, differences between abstraction & reality, d) devise abstract models. ***2.2.2 Computational methods*** – a) features that make a problem solvable, b) problem recognition, c) problem decomposition, d) use of divide and conquer, e) use of abstraction, f) backtracking, data mining, heuristics, modelling, pipelining and visualisation.

SUMMER 3:1

PITSTOP Assessment

Component 1 content

1.3.2 Databases – a) characterisation of databases, b) methods of managing data, c) normalisation to 3NF, d) SQL, e) referential integrity, f) transactional processing ACID. ***1.2.3 Software development*** – a) understand the development lifecycle, b) merits and drawbacks of different methodologies, c) writing and following algorithms.

SPRING 2:2

PITSTOP Assessment

Component 2 content

2.1.5 Thinking concurrently – a) determine the parts of a problem that can be tackled at the same time. ***2.3.1 Algorithms*** – a) analysis and design for a given situation, b) suitability of algorithms for a set task, c) big O notation, d) comparison of complexity of algorithms, e) algorithms for the main data structures, f) standard algorithms (bubble, insertion, quick and merge sort, Dijkstra's shortest path alogorithm, A* algorithm, binary and linear search)

Component 1 content

1.4.2 Data structures – a) arrays up to 3D, records, lists, tuples, b) linked-lists, graphs, stacks & queues, trees, hash tables, c) how to create, traverse, and and remove data from structures

SPRING 2:1

PITSTOP Assessment

Component 1 content

1.4.1 Data types – a) primitive data types, b) represent positive integers in binary, c) use of sign and magnitude and two's compliment to represent negative numbers in binary, d) addition and subtraction of binary integers, e) represent positive integers in hexadecimal, f) convert positive integers between binary, hexadecimal and denary, g) representation and normalisation of floating point numbers in binary, h) floating point arithmetic, positive and negative numbers, addition and subtraction, i) bitwise manipulation and masks, j) how characters sets are used to represent text. ***1.4.3 Boolean algebra*** – a) define problems using Boolean logic, b) manipulate Boolean expressions including the use of Karnaugh maps, c) use different laws to simplify expressions, d) use logic gate diagrams and truth tables.

AUTUMN 1:2

PITSTOP Assessment

Component 2 content

2.1.2 Thinking ahead – a) identifying inputs and outputs, b) determining pre-conditions for divising a solution to a problem, c) the nature, benefits and drawbacks of caching, d) the need for reusable program components. ***2.1.4 Thinking logically*** – a) identify the points in a solution where a decision has to be taken, b) deermine logical outcomes, c) determine how decisions affect flow through a program. ***2.2.1 Programming techniques*** – a) sequence, iteration and branching, b) recursion, how it can be used and compares to an iterative approach.

PITSTOP Assessment

Component 1 content

1.1.3 Input, output and storage – a) application for different problems, b) uses of magnetic, flash and optical storage, c) RAM and ROM, d) virtual storage. ***1.1.1 Structure and function of the processor*** – a) control unit and registers, b) the FDE cycle including its effects on registers, c) Factors affecting the performance of a CPU, d) the use of pipelining to improve efficiency. ***1.2.4 Types of programming language*** – a) need for and characteristics of programming paradigms, b) procedural languages, c) assembly language, d) modes of addressing memory. ***1.2.2 Types of processor*** – a) differences between and uses of CISC and RISC processors, b) GPUs and their uses, c) multicore and parallel systems. ***1.2.2 Applications generation*** – a) the nature of applications, b) utilities, c) open vs closed source, d) translators, interpreters, compilers and assemblers, e) stages of compilation, f) linkers and loaders and the use of libraries. ***1.2.1 Systems software*** – a) the need for, function and purpose of operating systems, e) distributed, embedded multi-tasking, multi-user and real time operating systems.

AUTUMN 1:1

OUR LEARNING JOURNEY

Year 13 A-Level Computer Science

OCR RECOGNISING ACHIEVEMENT

CARDINAL NEWMAN CATHOLIC SCHOOL

SUMMER 3:2

EXAM!

Year 12 recap

Lessons in this term will also revist the following topics.

- 1.2 Software and software development
- 1.5 Legal, moral and ethical issues
- 2.1 Elements of computational thinking

These lessons will have an exam focus, we will recap the knowledge from year 12 and use past paper and revision questions to prepare for the summer exams.

PITSTOP Assessment

SUMMER 3:1

EXAM PREPARATION

SPRING 2:2

Year 12 recap

Lessons in this term will also revist the following topics.

- 1.3 Exchanging data
- 2.2 Problem solving and programming
- 2.3 Algorithms

These lessons will have an exam focus, we will recap the knowledge from year 12 and use past paper and revision questions to prepare for the summer exams.

PITSTOP Assessment

MOCK EXAM

SPRING 2:1

MOCK EXAM

Component 3 content

Completion and assessment of project NEA

Students will have a deadline for the submission of their project. This will be marked and standardised, students will be given their grade which is worth 20% of the overall A-Level.

PITSTOP Assessment

AUTUMN 1:2

Year 12 recap

Lessons in this term will also revist the following topics.

- 1.1 The characteristics of contemporary processors, input, output & storage
- 1.4 Data types, data structures and algorithms

These lessons will have an exam focus, we will recap the knowledge from year 12 and use past paper and revision questions to prepare for the summer exams.

PITSTOP Assessment

Component 3 content

3.4 Evaluation

3.4.1 – Testing to inform evaluation
3.4.2 – Success of the solution
3.4.3 – Describe the final product
3.4.4 – Maintenance and development

Component 3 content

At the start of year 13 students will be well under way with their projects. The majority of the first term will be given to the continued development of their programming code.

3.3 Developing the solution (continued)

3.3.1 – Iterative development process
3.3.2 – Testing to inform development

AUTUMN 1:1

OUR LEARNING JOURNEY