

ISTITUTO: Istituto Tecnico Informatico e Telecomunicazioni

CLASSE: V

MATERIA: Inglese

Modulo n° 1	Contenuti Cognitivi
TELECOMMUNICATIONS	 Sending information First communication systems radio, telegraph and telephones Analog and digital communication Always on connections: digital telephone connections Binary numbers Advantages of digital: the shift towards the digital world. Digital recording LISTENING (CD'S BOOK) AND VIDEOLINKS Youtube: "Analog vs digital as fast as possible" (Teckquickie)
TRANSMISSION METHODS: NETWORK CABLES	 Wire media most common conductors Coaxial cable and fiber optic cable Impairments to radio transmission Satellite communications LISTENING (CD's BOOK) AND VIDEOLINKS Youtube: "the history of the telephone (CNET) MOVIELINK " The e-Waste Tragedy by Cosima Dannoritzer"(2014)

Modulo n° 2	Contenuti Cognitivi
OPTICAL FIBRE	 The History of the optical fibre What is it? Its definition and nature Communications using optical fibres and its advantages Cellular networks: the telephone system
OF HOAL FIBRE	LISTENING (CD's BOOK) Dialogue between Mrs Robinson and Mrs Greene.
100	VIDEOLINKS: youtube
	 " Fibre vs Copper as fast as possible" (Teckquickie) 6G explained
	 Landline networks Smart phones and smart homes The future of mobile phones: Holograms
	 5G networks the fifth generation technology Application area Performances
CELLULAR TELECOMMUNICATIONS	 LISTENING: Home automation appliances A very important innovation
	CULTURE: Stephen Hawking and the speech- generating device

Modulo n° 3	Contenuti Cognitivi
RADIATION AND TELECOMMUNICATIONS	 Electromagnetic waves Types of electromagnetic radiation Radio waves What happens to radio signals Microwave oven Medical imaging LISTENING Use radiation equipment safely VIDEOLINKS Youtube "Is radiation safely?" "The electromagnetic spectrum" CULTURE "Are we getting too much screen time?"
THE INTERNET ONLINE COMMUNICATION	DIGITAL MAPS: SUMMING UP What is internet? The world wide web How the Internet began and works The internet's future The Ethernet VoIP technology: voice over internet protocol LISTENING(cd's book) Professor Toole interview VIDEOLINKS "History of the internet"(Life Noggin) "How does the internet actually work"

Modulo n° 4	Contenuti Cognitivi
THE WEB	 Web Apps The language of the Web Evolution of the web Creating a website Search engine optimization (SEO) E-commerce and the cashless society Streaming services Human computer interaction Web 4.0
CONTRIGES.	CULTURE "Use the internet safely" "The tip of the iceberg" VIDEOLINKS youtube: "What is a Web App? "Web App vs NativeApp? "HTLM5 as fast as possible?" "Top 10 most popular websites" "Make technology work for everyone: introducing digital accessibility"
THE INTERNET ONLINE SERVICES	MOVIELINK: Trascendence by Wally Pfister (2014) SUMMING UP: DIGITAL MAP • Surfing and communicating the net Google, Yahoo • Social networks: Facebook, Instagram, Twitter, LinkedIn • Video sharing: youtube advantages and risks: VoIP (voice over internet protocol) • Communicating online • Blogging a popular internet activity • Shopping and business online: cloud computing • The internet online technologies push and pull

technologies
VIDEOLINKS Youtube" Let's talk about social media" "The dangers of the Internet" LISTENING E-mail writing Podcasts Netiquette Instagramming
MOVIELINK "The social network" by Mark Zuckerberg "The Circle by James Ponsoldt(2017) CULTURE: Social and ethical problems of IT
Online dangers

Modulo n° 5	Contenuti Cognitivi
AUTOMATION	 What is automation? Advantages of automation Programmable logic controller Automation at work How a robot works Varieties and uses of robots Robots in manufacturing Artificial intelligence and robots Robot fact and fiction SUMMING UP:DIGITAL MAPS VIDEOLINKS :youtube" The big debate about the
	future of work explained"

Modulo n° 6	Contenuti Cognitivi
NETWORKS TYPES AND TOPOLOGIES	 Linking computers Network configurations and nodes LANs and WANs Bus, ring, star, mesh, tree topologies
ISO-OSI PROTOCOLS	 VIDEOLINKS Youtube "computer networks". "network topologies" The Iso-Osi seven layers model. High- level OSI protocols Rounding off
	LISTENING (CD"S book): "Speech of the Prof. Simpson" "Communication protocols: ISO/OSI DIGITAL MAPS: SUMMING UP

THE PAOR

Modulo n° 7	Contenuti Cognitivi
THE WORLD OF I.T Issues of discussion	 Key skills: 21st century skills Career profiles: professional profiles A new technology :robotic process automation the drones: ENAC The impact of technology nowadays. Malware: a threat for your computer The Curriculum Vitae: What the CV should contain

