Unit 3: Additive manufacturing and 3D printing in Industry 4.0		

Subunit 3.2: AM: Processes, materials, and application areas		

Activity 2: AM: Processes, materials, and application areas		

Learning Outcomes	Knowledge	Skills	Responsibility and Autonomy
	• Fundamental knowledge of AM and 3D printing in Industry 4.0: processes, materials, and application areas	• Describe the most used deposition/printing processes in AM/3D printing • Recognise the main materials used in AM/3D printing considering their properties and applicability – metals, plastics, ceramics and composites, etc. • Recognise main application areas of AM in Industry 4.0: aerospace, automotive, healthcare, daily life objects, etc.	• Propose 3D printing to produce unique daily life objects/parts

Type of activity	☒ PDF ☒ PPT ☐ Image/Infographic ☐ Video	☒ Test/Quiz ☐ Game ☐ Other (specify) _____

Duration	360 min	

Activity (to be inserted into Moodle and seen by learners)	In this activity, trainees will learn the main processes, materials, and application areas of Additive Manufacturing (AM) and 3D printing. To complete the activity, please follow the next steps: 1. Read "3.2 AM: Processes, materials, and application areas" chapter of the PDF file "UNIT 3 - Additive manufacturing and 3D printing in Industry 4.0". 2. Accomplish the activity "AM processes" included in the "UNIT 3 - 3.2.1 - AM processes" PPT file. 3. Accomplish the activity "AM materials" included in the "UNIT 3 - 3.2.2 - AM materials" PPT file.	

	4. Accomplish the activity "AM application areas" included in the "UNIT 3 - 3.2.3 - AM application areas" PPT file.
Assessment	Self-assessment exercises.
Resources	Computer
Further reading	References chapter at the end of the PDF file "UNIT 3 - Additive manufacturing and 3D printing in Industry 4.0"