



CONNECT2COLLEGE

AUTOMOTIVE PRE-ENROLMENT RESOURCE PACK





Automotive Studies

Activity Pack for schools

#InThisTogether

Yr 11

The tasks in this activity pack are designed to support your transition from school to college if you are planning on following a career within Automotive. You should attempt to have a go at each of the activities in this pack, building a portfolio which demonstrates your skills and knowledge. You can bring this portfolio along with you during your first weeks here with us at The Manchester College.

Yr 10

If you would like to have a go at any of the activities in this pack, it's a great opportunity to start building a portfolio which demonstrates your skills and knowledge for college. This would be useful for you to bring along with you to any of your interviews or applicant evenings next year.

Contents

Reading List and Social Media Accounts.....	Page 2
Activity 1 – More About Mechanics.....	Page 3
Activity 2 – Testing Your Knowledge.....	Page 4
Activity 3 – Health & Safety.....	Page 5
Activity 4 – It's the Law.....	Page 6
Activity 5 – The Micrometre.....	Page 7
Activity 6 – Under the Bonnet.....	Page 8
Activity 7 – Employability Word search.....	Page 9

If you haven't yet applied and are still considering your applications, check out our courses in the Automotive Industry here https://www.tmc.ac.uk/course-finder?keywords=&subject_area=159&qualification=All&segment=277&location=All&=Search+our+courses&sort_by=title&sort_order=ASC



Reading List

Automobile Electrical and Electronic Systems – Tom Denton
Alternative Fuel, Hybrid & Electric Vehicles – Tom Denton
Automobile Mechanical and Electrical Systems: Automotive Technology, Vehicle Maintenance & Repair – Tom Denton
Automotive Technician Training: Theory (ATT) – Tom Denton

Websites

www.autocity.org.uk

Watch List

YouTube – How A Car Works

Social Media to check out

Facebook

The Manchester College

Twitter

@AyubMoosa
@TheMcrCollege
@SchoolsTeamTMC

Instagram

@themcrcollege
@schoolsliaisonmcr

Inspiration

Here are some of our Industry Partners. Why don't you do some research on each of them as you never know, you may be working with one of them in the future! Check out their social media accounts, visit show rooms when you can, look into their history or even their future plans and prospects.





Activity 1 – More About Mechanics

Your task is to research the different jobs mechanics undertake in their role. List them in the box below. Can you add a short description around what the job involves? Keep this piece of research in your portfolio.



Activity 2 – Testing Your Knowledge

Answer the following questions to the best of your ability. Keep this in your portfolio.

1. What is the boiling and freezing point of water in Celsius/Centigrade?
 - a. Boiling point
 - b. Freezing Point


2. A BMW 5 series has a coolant capacity of 7.6 Litres it is recommended that the coolant should be 50% antifreeze mix, how much antifreeze would be needed?

3. Two vehicles A & B are both identical apart for vehicle B is twice as heavy as vehicle A. They are both traveling at 70mp when the traffic in front of them comes to an abrupt stop. Which car stops in the shortest distance?

4. Calculate the following showing all working out without the use of a calculator
 - a) $498 \times 4 =$
 - b) $257 + 184 =$
 - c) $895 \text{ divided by } 5 =$
 - d) $22.20 - 17.50 =$

Activity 3 – Health & Safety

Health and Safety is taken very seriously across the industry. Everybody has to wear Personal Protective Equipment (P.P.E). Can you name the items of PPE and essential tools that you can see in the table below? Explain what they are used for when working on site. Remember to keep this work in your portfolio.



Activity 4 – It's the Law

The list below shows abbreviated legislation. Research what the abbreviated legislation stands for and what it covers. Write your answers in the table below. Keep this in your portfolio.

P.U.W.E.R	
C.O.S.H.H	
H.A.S.A.W.A	
R.I.D.D.O.R	

Activity 5 – The Micrometre

Watch the following YouTube video and answer the questions below.

<https://www.hpacademy.com/blog/how-to-read-and-use-your-micrometer>

1. Label the following image



- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....
- 7.....

2. Describe the purpose of a Micrometre

3. Where can the precision and size of micrometre be found?

4. What check must be done before using the micrometre?

5. Is a micrometre used for internal or external measurements?

Activity 6 – Under the Bonnet

Working with vehicles, it is important to know your oil from your brake fluid. Take a look at the photograph below which is an image underneath the bonnet of a car. Can you label the parts? You may want to ask an adult to help you, or do a quick google search. Keep this in your portfolio.





Activity 7 – Employability Word search

C	P	K	V	C	O	M	M	U	N	I	C	A	T	I	O	N	A	B	Y
D	U	L	T	N	I	A	S	L	I	G	R	I	V	N	A	E	S	D	H
H	I	S	O	C	I	A	L	S	K	I	L	L	S	I	N	I	T	I	A
T	B	M	T	D	O	G	L	G	E	T	P	A	I	T	G	B	U	V	R
E	A	A	N	O	I	D	I	D	O	M	M	O	T	I	V	A	T	E	D
C	G	T	E	A	M	W	O	R	K	I	I	M	K	A	O	X	I	R	W
H	G	I	R	E	X	E	R	R	O	F	Y	T	I	T	B	O	M	S	O
N	N	P	T	I	I	E	R	E	S	P	O	N	S	I	B	L	E	I	R
I	I	J	S	V	S	W	R	S	Q	S	H	O	N	V	O	U	K	T	K
C	V	F	L	E	X	I	B	L	E	Y	O	S	D	E	R	C	E	Y	I
A	L	R	Z	T	B	N	H	X	P	R	Y	R	R	L	K	A	E	H	N
L	O	I	X	S	O	E	U	I	T	R	V	L	G	I	A	S	P	S	G
S	S	E	P	E	N	H	A	L	A	S	E	I	L	A	N	T	I	D	Y
K	M	N	P	D	C	O	N	F	I	D	E	N	C	E	N	I	N	P	F
I	E	D	O	U	S	N	Y	B	B	O	B	L	L	E	S	I	G	N	B
L	L	L	L	T	Z	E	M	O	G	U	D	R	V	I	C	H	S	U	R
L	B	Y	K	I	H	S	N	O	S	S	I	L	A	B	M	L	P	E	R
S	O	P	C	T	Q	T	R	U	S	T	W	O	R	T	H	Y	E	N	D
L	R	R	D	T	J	Y	M	Z	D	L	O	N	R	A	I	C	R	A	G
O	P	H	E	A	L	T	H	A	N	D	S	A	F	E	T	Y	P	M	N

- | | | |
|----------------------|----------------------|-----------------------|
| 1) ATTITUDE | (2) CLEAN | (3) COMMUNICATION |
| (4) CONFIDENCE | (5) CUSTOMER SERVICE | (6) DIVERSITY |
| (7) FLEXIBLE | (8) FRIENDLY | (9) HARDWORKING |
| (10) HEALTH & SAFETY | (11) INITIATIVE | (12) MOTIVATED |
| (13) ORGANISED | (14) PROBLEM SOLVING | (15) RESPONSIBLE |
| (16) SOCIAL SKILLS | (17) TEAMWORK | (18) TECHNICAL SKILLS |
| (19) TIDY | (20) TIMEKEEPING | |

!!PRIZE!!

If you are in Year 11, and decide to join us in September, there will be a prize for the first completed wordsearch handed in during your induction.