1 Materials testing

1 Make sentences about the materials with 'can ..., but ... can't', or 'can ... and ... can'.

1 (bend / metal / wood) *You can bend metal, but you can't bend wood.*

2 (heat / air / water) *You can heat air and you can heat water.*

3 (melt / plastic / wood)
_____

4 (scratch / glass / metal)
_____

5 (stretch / nylon / glass)
_____

6 (break / glass / wood)
_____

7 (cut / wood / metal)
_____

8 (compress / air / glass)
_____

2 A lecturer is showing a DVD of a test. Complete the description. Use the present continuous.



Hello. Now we can watch the DVD of a car crash. Here they (1)*are testing* (test) the material for the seatbelt. The human dummy (2)_____ (sit) in the test car. This dummy weighs 90 kilos. Here the technician (3)_____ (tighten) the nylon seatbelt around the dummy. Now the technician (4) _____ (start) the engine of the radio-controlled car.
Look at the crash in slo-mo (= slow motion). The car (5)_____ (run) into the concrete block at 40 kph. The body of the dummy (6)_____ (stretch) the nylon seatbelt. And see, the dummy (7)_____ (touch) the airbag.
Look carefully. (8)___ the dummy's face _____ (strike) the front window?
No, it isn't. There is no contact with the front window.

3 Write questions and answers for the pictures.



1 A: *Are you pushing the handles?*
B: *No, I'm rowing.*

2 A:
B:

3 A:
B:

4 A:
B:

5 A:
B:

6 A:
B:

LIVEWORKSHEETS

2 Properties

1 Find the names of 14 materials in the puzzle and circle them. The words go vertically from top to bottom, and sideways from left to right. No words go diagonally.

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

2 Underline the two correct adjectives for each material.

1 A ceramic cup is flexible/heat-resistant and hard/soft.
2 A concrete floor is rigid/flexible and brittle/tough.
3 A rubber tyre is rigid/flexible and weak/strong.
4 A fibreglass window frame is heat-resistant/soft and rigid/flexible.
5 A nylon rope is rigid/flexible and strong/weak.
6 The graphite in the middle of a pencil is light/heavy and hard/soft.
7 A polycarbonate road sign is rigid/flexible and strong/weak.
8 A polystyrene coffee cup is brittle/tough and heavy/light.

3 Design a plane. Choose one material for each part of the plane.



1 (nose cone / plastic / aluminium)
The nose cone is made of aluminium.
2 (wheels / fibreglass / aluminium alloy)
_____
3 (tyres / ceramic / rubber composite)
_____
4 (frame / composite / polystyrene)
_____
5 (inside / fibreglass / rubber composite)
_____
6 (seats / plastic / ceramic)
_____
7 (engine / fibreglass / aluminium alloy)
_____
8 (wings / aluminium alloy / plastic)
_____

LIVEWORKSHEETS

3 Buying

1 15 Listen and complete the order form. A customer is buying equipment on the phone.

THE CLIMBING SHOP ORDER FORM	
Date: *23/03/08*	**Helmet** (polycarbonate / fibreglass) (L / M / S)
Product name: _____	
Product no: _____	**Rope** (nylon / nylon + rubber composite) (50 m / 75 m / 100 m)
Quantity: _____	
Colour: _____	**Jacket** (cotton / polyester) (XL / L / M / S)
Size: _____	
Material: _____	**Backpack** (nylon / polyester) (XL / L / M / S)
Price: _____	

2 16 Listen and correct the email addresses.

1 jclark@eyeway.co.uk → _____
2 alex2@antigm.ac.uk → _____
3 s.hagen@renault.fra → _____

3 17 Listen and write the website addresses.

1 News: _____
2 Live radio: _____
3 Radio-controlled toys: _____

4 A customer is phoning a sports shop. Write questions for the answers.

1 Q: *What's your surname, please?*
A: It's Badrawi.
2 Q: _____
A: B–A–D–R–A–W–I.
3 Q: _____
A: 01273 497 633.
4 Q: _____
A: Ali dot badrawi at atlas dot com.
5 Q: _____
A: Yes. A–L–I dot badrawi at atlas, that's A–T–L–A–S dot com.
6 Q: _____
A: I need three helmets.
7 Q: _____
A: I'd like white ones, please.
8 Q: _____
A: I want to pay in euros, please.

LIVEWORKSHEETS

4 Word list

NOUNS (Materials)	NOUNS (Car parts, other)	VERBS	ADJECTIVES
alloy	backpack	bend	brittle
aluminium	cone	break	corrosion-resistant
ceramic	engine	burn	flexible
composite	frame	climb	hard
concrete	helmet	coat	heat-resistant
cromoly	jacket	compress	heavy
diamond	piston	corrode	light
fibreglass	radiator	drop	rigid
graphite	rope	heat	soft
nylon	spoiler	hold	strong
plastic	tyre	melt	tough
polycarbonate	vehicle	row	weak
polyester	wheel	run	**PHRASES FOR EMAILS**
polystyrene	wing	scratch	dash
rubber		stretch	dot
steel		strike	forward slash
titanium		touch	hyphen
			underscore

1 Memory test. What is a racing car made of? Write the materials from column 1.

1 The nose cone *is made of fibreglass.*
2 The wheels *are made of* _____ _____.
3 The frame _____.
4 The tyres _____.
5 The radiator _____.
6 The engine _____.
7 The pistons are coated with _____.
8 The wings are made of _____ and _____.

2 Write the opposites of the adjectives from the list in column 4.

1 Nylon isn't weak. It's *strong.*
2 Polystyrene isn't tough. It's _____.
3 Graphite isn't hard. It's _____.
4 Rubber isn't rigid. It's _____.
5 Aluminium isn't heavy. It's _____.

LIVEWORKSHEETS