
Exemplar Leaflet 2: Equipment in Sport

The following pages contain a sample leaflet submitted as part of a Unit 7 portfolio. They should be read in conjunction with the assessment evidence grid in the unit specification.

The two pages should be printed out back to back and folded into three.

ASSESSOR'S COMMENTARY ON MARK ALLOCATION

This part of the portfolio contains evidence for AO1 and AO2a.

This leaflet achieves the both assessment objectives at Mark Band 2.

AO1 MB2 requires "you will demonstrate an extensive knowledge and understanding of the facts, phenomena and principles; there may be minor omissions but there are no serious scientific errors"

AO2 MB2 requires "you will show that you usually identify the underlying principles relating the selections although there may be minor errors and omissions your explanations will be clear and accurate"

AO1: The work is satisfactorily researched and sources are identified. Some details on modern materials are omitted but this is consistent with the size of the leaflet and the information given is appropriate for a coach to give to inexperienced sailors. MB3 is not achieved as this would require comprehensive and detailed knowledge beyond that which is demonstrated.

AO2: The key relevant properties of each material are clearly set out and the underlying principles relating these to the applications are identified. Brief sections on colour coding and construction contribute to the breadth of coverage. MB3 is not achieved as explanations of the underlying principles could be more thorough.

Recommended Ropes.

Anchor and dock lines:

Nylon

Absorbs shock,
resists wear,
impervious to UV, light & chemicals.

Halyards:

Polyester or Kevlar

Doesn't stretch,
strong.

Painters, Rescue Lines and Tow Ropes:

Polypropylene

floats
is not dragged into propellers or lost
under boats.

Sheets:

Polyester

Long-wearing,
easy on the hands,
gives a good grip on winch drums,
even when wet.

Recommended Colour Coding

Mainsail sheet and halyard	White
Jib/genoa	Blue
Spinnaker	Red and green for guys
Travellers	Black

Sources:

Day Skipper, Royal Yachting Association, 1988.

Thermoplastics and Thermosetting Plastics,
http://www.tep.org.uk/a2z_glossary/a2z/plastics.htm

All about Rope
http://www.justsail.com/cordage_intro.htm

Choosing the Right Rope
<http://www.boatus.com/boattech/rope.htm>

Marlinespike - Rope Materials - Nautical Know How
<http://www.boatsafe.com/marlinespike/material.htm>

**GCE in Applied Science
Unit 7: Physics of Sport**

**Example leaflet 5
“Equipment in Sport”**



Ropes for Sailing

Disclaimer: This leaflet is produced as an example of what might be produced by a vocational 'A' level student as assignment work. Advice from qualified experts should be sought when selecting rope.

Ropes

polymer	Polymer group	trade name	Significant properties	Sailing application	mass per unit of strength for 100 ft of 12.7 mm rope / kg		% elongation at failure	Cost / £ kg ⁻¹	
Nylon (polyamide)	Thermoplastic		very elastic (absorbs shock)	ideal for anchor lines	2.9		20	2	
polyester	Thermoset	Terylene	hardly stretches at all	ideal all round rope especially good for halyards	3.4		14	2	
polypropylene	Thermoplastic	Courelene	floats	good for dinghy painters and rescue lines	2.3	Lightweight	30-40	2	
Kevlar29	Polyester		very strong and non-elastic		3.9		4	25	Expensive

Construction.

	
<p>Plaited or braided smooth running</p> <p>Often outer cover and inner core. These may be different construction</p> <p>Braided cover used for all except anchor and dock lines.</p>	<p>Laid or twisted easy to splice</p> <p>but stretchy and nobby so not free running or easy on the hands</p>