TRIATHLON

Communication Project
For Teachers **p2&3**, for Students **p4**

HEALTH AND SAFETY

Students should be encouraged to make their own risk assessment before they carry out any activity, including surveys. In all circumstances this must be checked by a competent person.

For surveys and other activities on open water, the PE department or local water sports clubs may be able to help with risk assessments and ways to avoid risks. Students using specialised equipment should be supervised at all times.

Students may want to set up unorthodox experiments and you may need to seek specialist advice. In particular:

- Any investigations into the actual effect on real people of immersion in cool or cold water must only be done with medical supervision and appropriate medical resources on hand in case of emergency
- Any activity associated with open water will require specialised risk assessment.

Organisations such as CLEAPSS are able to help.

TRIATHLON:
Bronze **Communication** Project - For Teachers

What makes a good wetsuit?

The swimming leg of the 2009 world triathlon championships took place in an outdoor lake in Hyde Park, London. We all know that Britain can be a bit cold, even in the summer. Imagine how cold it must be jumping into a lake with only a swimming costume to keep you warm! That's why, if the water temperature drops below 20°C, triathletes are allowed to wear wetsuits instead of a swimming costume

HAVE YOU EVER WONDERED?

...why some wetsuits are better than others?

You might like to imagine yourself in a situation such as...

Athletes and their coaches rely on experts to help them choose the right clothing and equipment. Imagine you are the expert for a swimwear company, telling both customers and your company salespeople about the wetsuits you design. You need to gather information about the material your wetsuits are made from, and about the style of the wetsuits you sell, then **use your communication skills** to:

- explain the features of your wetsuits that make them particularly suitable for top athletes
- convince them that your wetsuits meet athletes' needs better than the wetsuits your competitors sell.

Prompts

The **Student Brief** gives some triggers to start students thinking. They should realise that each trigger has various implications. Encourage students to identify these themselves. However, if necessary, prompts such as those below might be given, to point students in suitable directions.

- The nature of your target audience, and how to make an impact on them
  - What types of audience would test your communication skills?
  - How strong will your arguments need to be to:
    - convince athletes who are competing well in their current wetsuit that they would do even better in yours
- Using a mixture of written, spoken and visual communication, including experiments, if appropriate
  - What are the alternatives to PowerPoint?
  - How could you develop and use:
    - a sales resource, or video to 'showcase' the advantages of your design
    - a balloon debate, comparing different wetsuits the company might decide to promote?
- How can you present information and numerical data in an interesting way, rather than as dry facts and figures?
- Presenting scientific information, rather than emotive arguments
  - What information about wetsuit design should you include?
  - What science will you present?
  - How will you check your facts?
- Using correct scientific language and terminology
  - If terminology is incorrect, unclear or ambiguous, how will your audience react?
  - Which scientific words may your audience not understand? What is the best way to explain them?
- Presenting the limitations of your wetsuits, but making it clear why you still think they are the best
  - What are the possible counter-arguments? How will you counter them?
  - What are likely questions from your audience?

Suggestions for supporting students

Communicators should spend the majority of their time working on how to deliver their message, rather than information seeking.

Communicator students are responsible for selecting information and using it in their chosen format. However, they may need some direction from you to identify suitable sources of relevant information at an appropriate level.

Although Bronze Award students are not expected to have an official mentor for their project, access to expert advice makes students feel their work is important. Also, if the topic is not in your area of expertise, you may find a Mentor valuable. Your CREST Local Coordinator may be able to suggest suitable contacts.

Depending upon the project undertaken, someone with knowledge and/or experience of one or more of the following could be ideal:

- academic or industrial research or development related to, for instance,
- development of new materials
- thermal insulation or heat flow
- sports equipment or training programs
- scientific publishing

Discuss with students how they will manage their time (after school clubs, working during lunch hours, homework). Agree a completion date with them.

- Student should decide their focus, although this may alter in the light of experience as the project progresses.

POSSIBLE EQUIPMENT, MATERIALS AND RESOURCES

These will depend on the presentation format(s) chosen by the student. They might include:

- digital camera and access to photo-manipulation software
- video camera and editing facilities
- drama performance area
- an independent audience to whom to present their project
- samples of wetsuits or wetsuit materials, balances for weighing, equipment for showing cooling or heat flow
- facilities for practising practical demonstrations
- access to someone skilled in preparing and delivering presentations
- an audience for a dress rehearsal
- access to GCSE (or equivalent) texts for physics and applied science, and for sports science/P.E.

Internet search

Combine 'wetsuit' with terms such as: warmth, insulation, streamlining, design, triathlon or neoprene. Or try:

- Video on general experience of competing in a triathlon
  news.bbc.co.uk/sport1/hi/other_sports/triathlon/8194149.stm
- Basics of how wetsuits work
  explainthatstuff.com/howwetsuitswork.html
- Factors to consider when buying a wetsuit
  swimming.about.com/od/triathlon/a/buy_a_wetsuit.htm

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Some things to think about...

- Using a mixture of written, spoken and visual communication, including experiments, if appropriate
- How to hold people's attention as well as just giving them facts
- Presenting scientific information, rather than emotive arguments
- Using correct scientific language and terminology
- Presenting the limitations of your wetsuits, but making it clear why you still think they are the best
- Who will advise you on presentation skills?

Health and Safety

Should you decide to carry out any experiment or practical activity:

(a) find out if any of the substances, equipment or procedures are hazardous

(b) assess the risks (think about what could go wrong and how serious it might be)

(c) decide what you need to do to reduce any risks (such as wearing personal protective equipment, knowing how to deal with emergencies and so on)

(d) make sure your teacher agrees with your plan and risk assessment

NOTE: Your teacher will check your risk assessment against that of your school. If no risk assessment exists for the activity, your teacher may need to obtain special advice. This may take some time.

(e) if special tools or machines are needed, arrange to use them in a properly supervised D&T workshop.