



## Cricket Smart **Student Resource**



**CRICKET**  
AUSTRALIA

### **EYES ON THE PRIZE**

#### A design and innovation challenge

Many of you have, or will, receive a trophy for something you have achieved, whether it be awarded from your school or from your local club or organisation. Trophies usually take pride of place in your home and come in all shapes and sizes. Compare cricket's Ashes Urn with a trophy you may have at home.

In this unit, 'Eyes on the Prize', you will explore the latest digital tools available and create a realistic three-dimensional model of a proposed trophy for the new 'Women's Big Bash League'.

The finished product should reflect real meaning and significance to the winning team.

# YEAR 7/8 & 9/10 DESIGN AND TECHNOLOGIES

## Student Resource

# EYES ON THE PRIZE

## A design and innovation challenge

### Unit Description



In this unit, 'Eyes on the Prize', you will explore the rich history of cricket through the evolution of the impressive trophies presented to winning teams competing in international cricket competitions. You will work together or individually, explore the latest digital tools available and create a realistic three-dimensional model of a proposed trophy for the recently announced Women's Big Bash League. See Appendix A for more details on the Women's Big Bash League.

Your brief is to design and create a memorable trophy to reflect the growing popularity of cricket as a sport for all.

### Unit Expectations

In completing this unit, you will be expected to:

- Explore what you know about trophies, identify what you would like to find out and locate sources of information on trophies and their elements
- Investigate the materials and designs of historically important international cricket trophies
- Compare and list the attributes of different trophies according to formulated criteria
- Use a decision making process to choose the trophy with the best design
- Consider your brief, determine the major components of the task and work toward a solution that will meet the requirements of the brief
- Produce plans, sketches and three-dimensional models of a proposed trophy
- Create a presentation of your trophy design in order to win the tender to design a trophy for the winning team of the Women's Big Bash League
- Create an evaluation tool and assess trophies made by members of your class using an agreed set of criteria
- Reflect on the technology skills you used in creating the trophy

# Major Assessment Task

## Design, create and evaluate a model of a trophy for the winning team

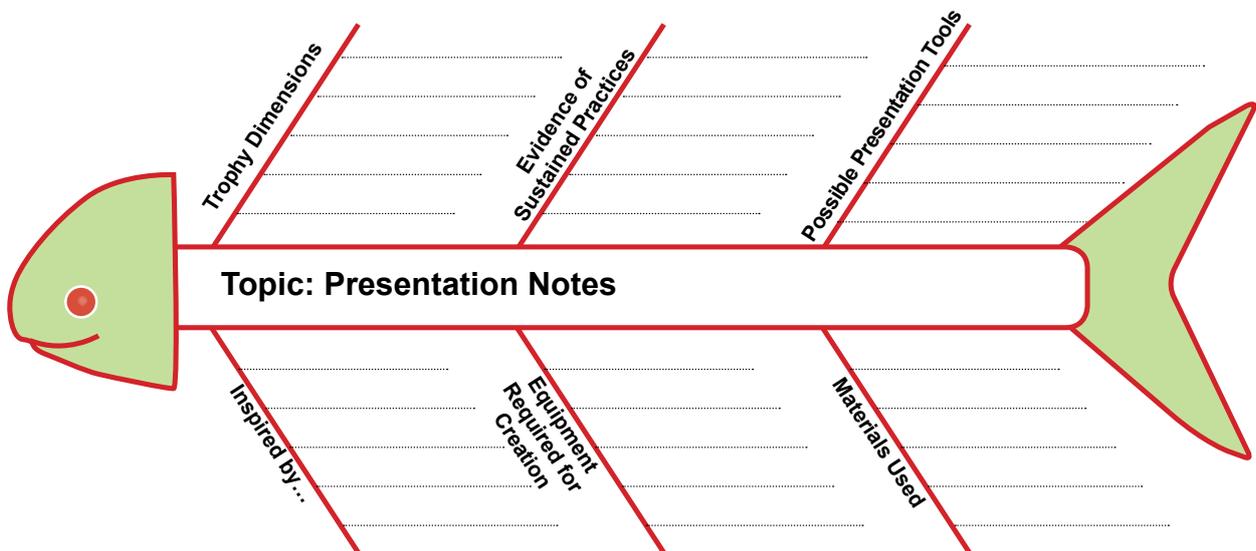
### Assessment Item A

During this unit, you will design and create a model of a trophy to be **permanently awarded** to the winning team of the Women's Big Bash League. After planning the model by creating detailed sketches or computer-aided design (CAD) showing the plan, front and side elevation views, a model can be created. Construction materials and methods include, but are not limited to:

- Regular household items (paper rolls, card, etc.)
- A rigid cardboard model, based on regular solid shapes and covered in papier mache
- CAD using Tinkercad or similar software to create two-dimensional or three-dimensional designs
- Printing a three-dimensional model using a 3D Printer
- Using a laser cutter, CNC Router, engraver or similar technology to create a two-dimensional design
- Plywood/MDF, acrylic sheet, bamboo sheet, stone products, polystyrene sheet/balls, recycled materials, glue and nails

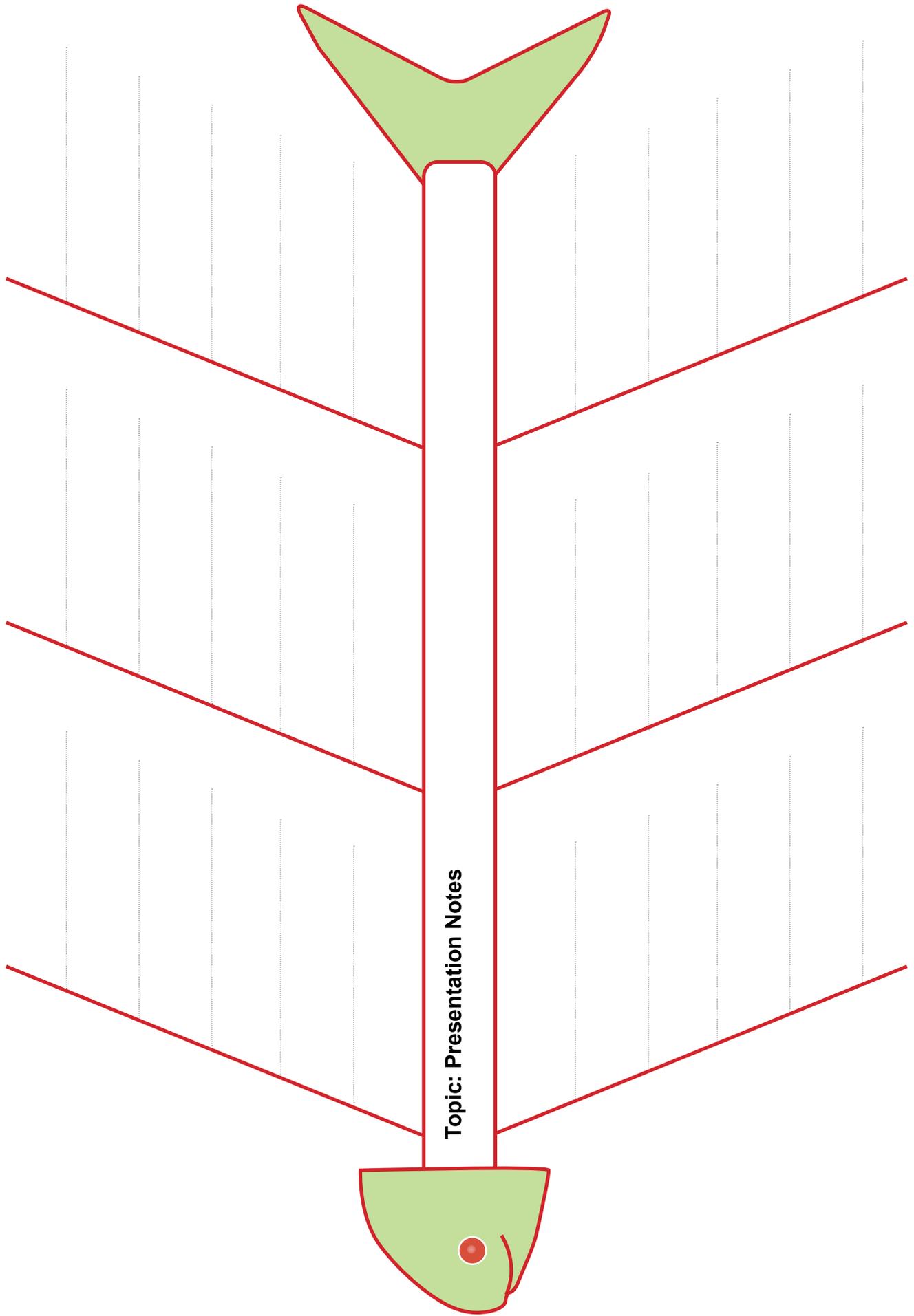
### Assessment Item B

You will create a digital presentation for the class representing Cricket Australia, showcasing your trophy design and including images of your model. This presentation will be the pitch you use to win the tender for designing the trophy for the winning team of the 'Women's Big Bash League'. You will describe the environmental sustainability focus of your trophy; how its design is inspired by the inclusiveness of the sport of cricket, materials used in its production and its dimensions and measurements. The class can vote on the best presentation and trophy. You can use the **Fishbone Diagram** on page four to plan your presentation, using headings similar to the ones shown below.



To find out how to complete a **Fishbone Diagram** scan the QR Code or use the URL.

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## Assessment Item A

### Activity 1: Investigation – the trophy cabinet

To create a successful trophy, you need to learn more about trophies.

- Why are they presented to the winning teams?
- What purpose do they serve?
- What are some of the famous cricket trophies?
- Who makes these world-class trophies? How are they created?

While your final design will be original, you also need to gather some ideas and an understanding of what makes a great trophy. The tasks in Activity 1 are designed to build your knowledge and generate questions about trophies.

#### Activity 1: Task list

**Task 1:** KWHL – recall and build knowledge about trophies

**Task 2:** Double Bubble Map – compare two famous cricket trophies

**Task 3:** Attribute Listing Organiser – elements of iconic cricket trophies

**Task 4:** Elimination Draw – most popular cricket trophy

**Task 5:** Fishbone Diagram – elements of a successful trophy

#### Task 1:

A **KWHL** allows you to list information in four columns:

- What I Know (K)
- What I Want to Know (W)
- How Will I Find Out? (H)
- What Have I Learnt? (L)

To find out how to complete a **KWHL** scan the QR Code or use the URL.

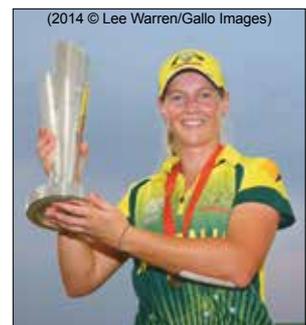
[www.itcpublications.com.au/qr/kwhsau](http://www.itcpublications.com.au/qr/kwhsau)



Complete a **KWHL** about trophies (see p.6). List at least five points in each of the first three columns, and complete the last column at the end of the unit with as many points as possible.

In order to guide your thought processes, focus on the follow questions for the ‘K’ and ‘W’ columns.

- Has there been a time when you felt like you achieved something?
- Why do we have trophies?
- Why are they presented to the winning teams?
- Who receives the biggest and best trophies?
- What purpose do they serve?
- What are the construction materials usually used to make an international trophy?
- What are some of the famous cricket trophies?
- What are some trophies that you recognise or can list?
- What sort of tools and techniques are used to create trophies?
- Who makes these world class trophies?
- How are they created?
- What makes a good trophy?
- How does a trophy make a person feel?
- How environmentally friendly are most trophies?
- What are some alternatives to trophies?





## Task 2:

Watch the video that accompanies this unit at [www.cricketsmart.cricket.com.au](http://www.cricketsmart.cricket.com.au). Pay special attention to the different types of cricket trophies mentioned. Use the **Double Bubble Map** to compare a trophy held by Cricket Australia, such as the ICC Cricket World Cup 2015 trophy and the Ashes Urn. Focus on appearance, dimensions, cultural and historical significance, materials used, importance and economic contribution to Australia.

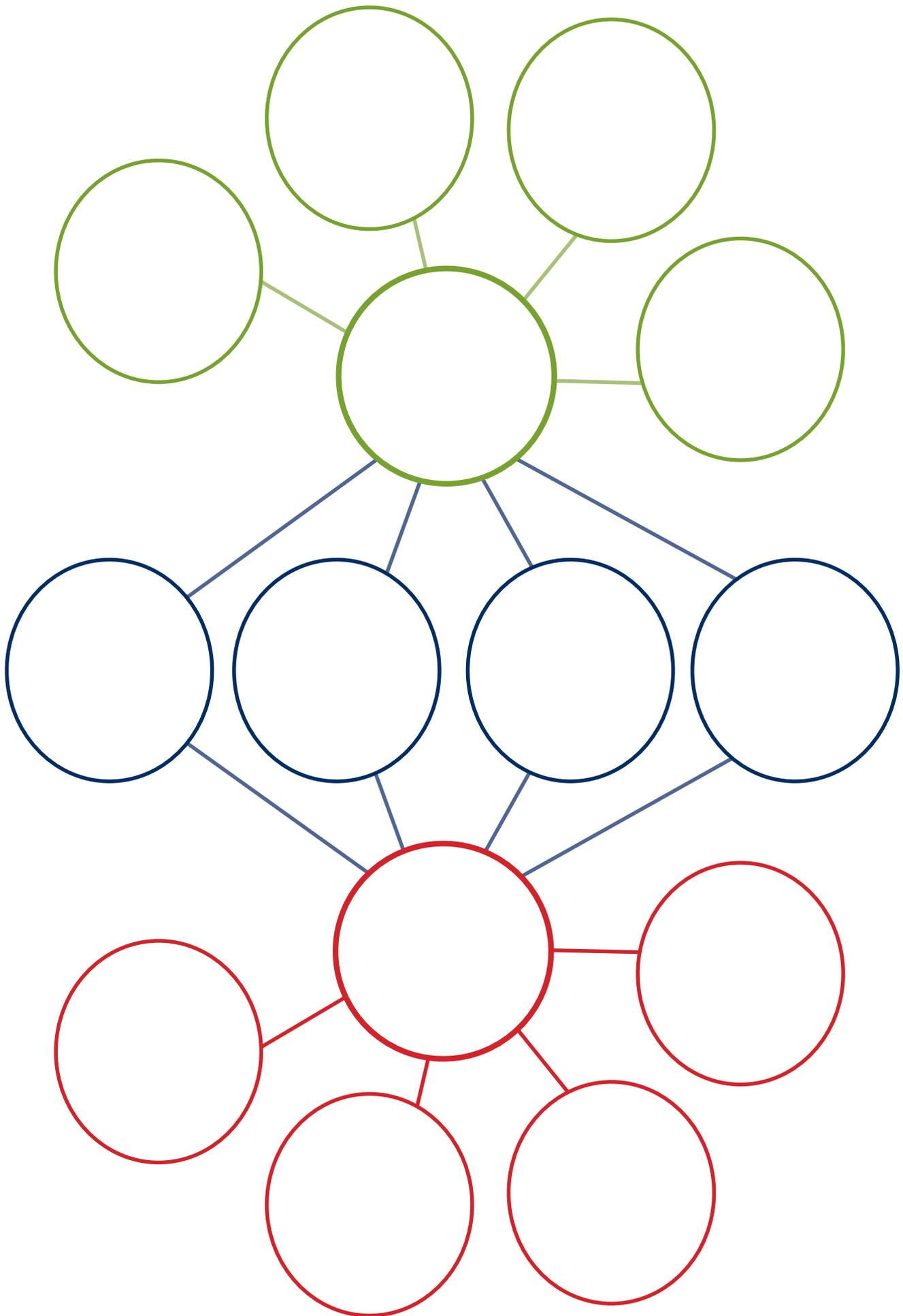
The **Double Bubble Map** allows you to list attributes that are unique and common to two trophies. On the following page (p.8), in the central bubble on the left write a cricket trophy, such as 'Ashes Urn' and begin comparing it with another trophy you have selected in the central bubble on the right. This could be a cricket trophy or it could be a trophy from another sport, e.g. the Vince Lombardi Trophy, FA Cup, A League Trophy, NRL Premiership or even the Big Bash League trophy. The elements that are unique go around the outside of each trophy. List the elements that are common to the two trophies in the middle section. See the example below.

To find out how to complete a **Double Bubble Map** scan the QR Code or use the URL.



[www.itcpublications.com.au/qr/dbmsau](http://www.itcpublications.com.au/qr/dbmsau)





### Task 3:

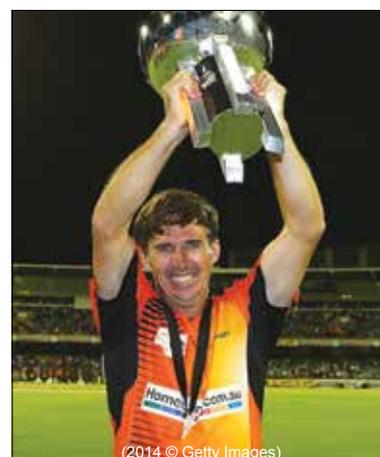
Watch the video that accompanies this unit at [www.cricketsmart.cricket.com.au](http://www.cricketsmart.cricket.com.au). With additional research, complete the **Attribute Listing Organiser** on the following page (p.10) based on the four trophies listed in the table to highlight and compare the different attributes of the trophies. Write information in each column about each trophy. Use the headings shown and **add one of your own choice**.

You need to identify:

1. Materials that were used to create the trophy
2. Safety procedures and equipment used during construction
3. Major design and structural features of the trophy

Before commencing the **Attribute Listing Organiser**, we recommend you access various trophy websites to become more familiar with the traditional elements of a trophy.

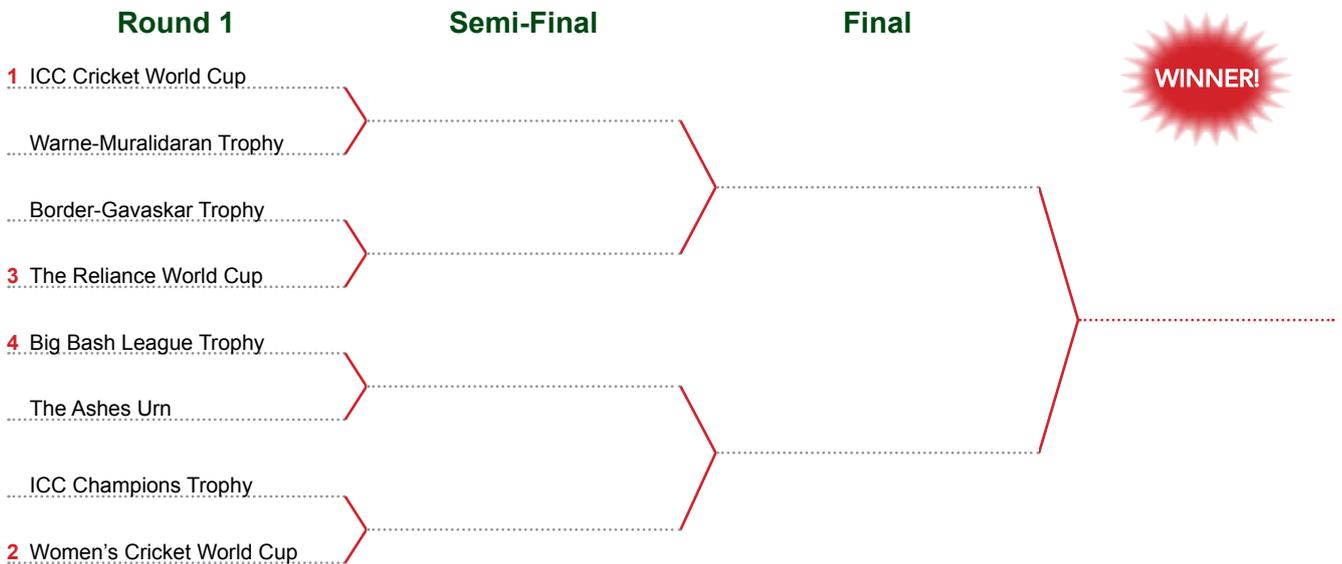
Trophies	Materials	Safety Procedures and Equipment	Major Design and Structural Features	
ICC Cricket World Cup Trophy				
Big Bash League				
Ashes Urn				
A trophy of your choice				



Trophies	Materials	Safety Procedures and Equipment	Major Design and Structural Features	
ICC World Cup Trophy				
Big Bash League				
Ashes Urn				
A trophy of your choice				

## Task 4:

When it comes to art and design, we all have our own opinions about what we think looks good. Here's your chance to ensure that your opinion is heard, and witness the power of democracy. Complete a whole class or small group **Elimination Draw** to decide the most popular cricket trophy, from those listed below. Ensure that you do some research to become familiar with the trophies. Base your decision solely on *design and aesthetics*. Ask yourself "Which one *looks* the best?" You may want to use Google images ([images.google.com](https://images.google.com)) to find pictures of these trophies.



World-class trophy makers are artists. They create a piece of sculpture that is awarded in recognition of excellence. Trophies need to look good because they are given as a reward and they often take pride of place in an organisation's foyer, clubhouse or someone's trophy cabinet. Trophies all have similarities such as colour and materials used, but what must a trophy maker consider when creating a trophy for the 'Women's Big Bash League'? Perhaps it needs to be a one-of-a-kind piece?

To find out how to complete an **Elimination Draw** scan the QR Code or use the URL.



[www.itcpublications.com.au/qr/edrsau](http://www.itcpublications.com.au/qr/edrsau)

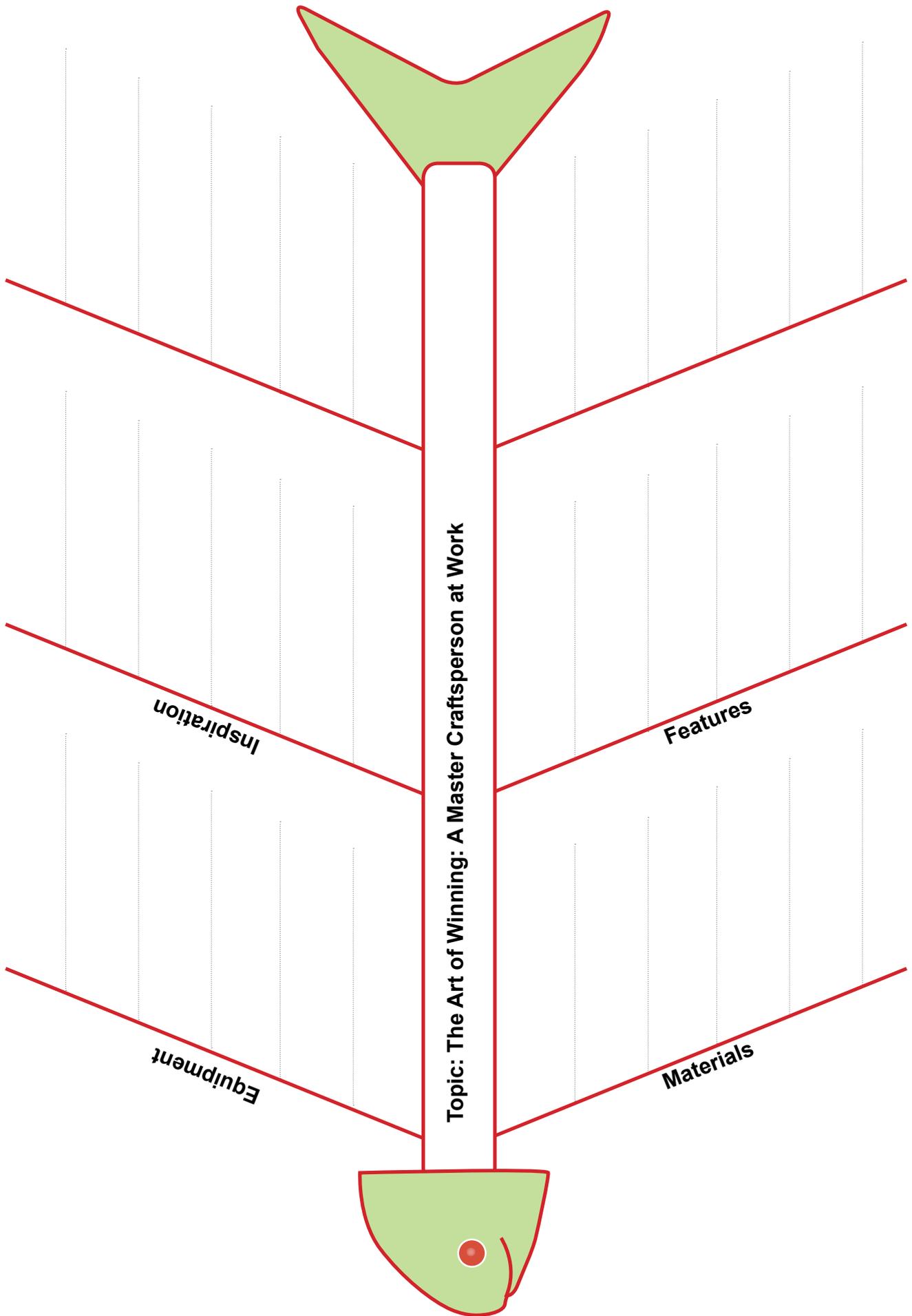
## Task 5:

Watch the video that accompanies this unit at [www.cricketsmart.cricket.com.au](http://www.cricketsmart.cricket.com.au) and pay special attention to the important features of a trophy. Use a **Fishbone Diagram** (p.12) to list the elements of a trophy. Use the headings provided; add two headings of your own and include up to five elements under each heading. What *equipment* was utilised? What *materials* were used? What are the *features* of a trophy? How is the trophy designer inspired?

To find out how to complete a **Fishbone Diagram** scan the QR Code or use the URL.



[www.itcpublications.com.au/qr/fshsau](http://www.itcpublications.com.au/qr/fshsau)



## Assessment Item A

### Activity 2: Ideation and production – create your masterpiece

You have successfully immersed yourself into the Cricket Australia trophy cabinet and have a sense of the process of making a trophy. Now it's time to put your new-found knowledge to use. Work through these activities to build an understanding of your challenge, and then design and create a trophy of your own.

It is important that you incorporate the parameters of the task, so that you create a trophy that will fit the brief. Your teacher will carefully monitor this task to ensure that the main points are identified.



#### Activity 2: Task list

**Task 1:** 3:2:1:RIQ – what is the brief?

**Task 2:** Icon Prompt – collaborate to understand the task

**Task 3:** Design Criteria Checklist – what does my trophy need?

**Task 4:** Planning and Designing – start sketching

**Task 5:** Three-dimensional product – create a 3D design with your choice of medium

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#### Task 1:

Reread the brief (Assessment Items A and B) on page three. Consider the brief by completing a **3:2:1:RIQ** (see p.14). Use the strategy to note the main points to remember for this task. List some ideas and formulate a question for your facilitator or teacher to clarify or discuss.

A **3:2:1:RIQ** requires you to list:

- Three points that you recall from the brief
- Two insights or ideas that you gained from the information
- One question that you would like answered

To find out how to complete a **3:2:1:RIQ** scan the QR Code or use the URL.

[www.itcpublications.com.au/qr/321sau](http://www.itcpublications.com.au/qr/321sau)



Two heads are better than one. What about four heads? Collaborate with your classmates by combining your notes to create a valuable summary document. The symbols remind you to add information in the four contexts listed on the next page.

## Task 2:

In groups of four, distribute your **3:2:1:R:I:Q** notes onto the table below. List your information under the following icons:



What messages do you think the sport of cricket wants to convey from the appearance of the trophy?



What measurement parameters and materials inclusion will you need to satisfy?



What elements of cricket, as an inclusive all age, all gender sport and requirements such as, environmental sustainability, need to be represented by the appearance or composition of the trophy?



What other important facts need to be considered?

By now you have a number of ideas about what you actually need to create. You know the brief – the materials, the appearance, the environmental considerations, the dimensions, etc. Now you will create a digital checklist to make sure that you address all the criteria for the trophy. You will also use this presentation to show how you have addressed the criteria.

### Task 3:

Under the guidance of your teacher in a whole class activity, create a list of five to ten design criteria that the finished trophy needs to satisfy based on your **3:2:1:RIQ**, the table on page 14 and your knowledge of trophy design and construction. Then, create a digital presentation that lists and explains each criteria. Use the title of 'Design Criteria Checklist'. This will be used as a design portfolio to confirm that each criteria has been addressed. At the end of the design challenge, you will include evidence of each standard on the page with its related criteria and an explanation. Your evidence will be in the form of images, video or audio.

For example:



**Sustainable Practices**

**Criteria**

The trophy needs to have recycled materials or practices that promote sustainable living.

**Evidence**

To achieve this, we used recycled timber for the base of the trophy.



There are many different computer-based presentation tools that you can use to complete this task. Have a look at the list below for some ideas.

- PowerPoint
- Publisher
- Comic Life
- Powtoon
- Videolean
- SlideShare
- Emprer
- Ahead
- HelloSlide
- Photo Story 3
- Word
- Movie Maker
- iMovie
- Google Presentation
- Keynote
- Animoto
- Prezi
- SlideShark
- Mindomo
- Mindmeister

All great work progresses from ideation into planning. Your model is best planned through the creation of detailed sketches or computer-aided design (CAD) that are products of your ideas and imagination. Lengths, widths and heights should be labelled on the designs which show the model from all sides. Annotations on the designs add value by identifying **design criteria details** such as materials, colours and finish textures. These will give you a design to which you can aspire in the creation phase.

## Task 4:

Start planning your trophy by creating detailed designs. It is important that you use the 'Design Criteria Checklist' created in Task 3 to ensure that your designs illustrate the features that are essential to the trophy. As a guide, the trophies should be between 15 centimetres and 20 centimetres high. If you like, you can use grid paper to create a scale for your model. It should be a 1:1 scale. To complete this task, you must produce a final series of designs that show the:

- Plan view
- Side view(s)
- Front View
- Dimensions (height, width, length)
- Labelled proposed materials, including recyclables, and highlight practices and products that promote sustainability

It is fun to create a two-dimensional drawing, but nothing beats creating a three-dimensional model. This process involves making objects with your hands or using innovative technology to produce a virtual three-dimensional model.

## Task 5:

Create a three-dimensional model of your trophy. Construction materials and methods include, but are not limited to:

- Regular household items (paper rolls, card, etc.)
- A rigid cardboard model, based on regular solid shapes and covered in papier mache
- CAD using Tinkercad or similar software to create two-dimensional or three-dimensional designs
- Printing a three-dimensional model using a 3D Printer
- Using a laser cutter, CNC Router, engraver or similar technology to create a two-dimensional design
- Plywood/MDF, acrylic sheet, bamboo sheet, stone products, polystyrene sheet/balls, recycled materials, glue and nails

In all cases, the trophy needs to be presented with aesthetic qualities that make it look similar to an actual trophy. To do this, you can use fabric, foil, paper or paint to create an external covering that replicates trophy materials such as gold, silver, glass, crystal and fine timbers. Don't forget the plaque for the winner's name!

Now that you have made the model, it is time to sell it to 'Cricket Australia'. 'Cricket Australia' requires a digital presentation that will showcase the trophy design, highlight its required features and persuade the selection panel that not only does it fit the brief, but that it is an impressive trophy. In short, it has to be a winner!

## Assessment Item B

Create a presentation for 'Cricket Australia' to win a possible tender for the trophy design contract based on the delivered brief. Incorporate multi-media elements into a digital presentation that can be submitted via the internet or digital storage device, and easily viewed by the selection committee.

To complete this vital promotional task, you will need to use a dynamic presentation method such as those used in business presentations, e.g. many of the computer-based presentation tools listed on page 15. You will need to discuss your method with your teacher.

When completing your presentation, it is important to note that it needs to be able to be viewed by someone who cannot ask you questions. Therefore it must be clearly presented and all possible questions answered. It must:

- Have correct spelling, grammar and punctuation
- Use point form rather than long sentences
- Incorporate audio such as a voice over or background music



## Assessment Items A and B

### Activity: Evaluation and feedback – constructive criticism

Being able to evaluate your own work and the work of your peers, and offer feedback based on that evaluation, are essential to the learning process.

#### Activity: Evaluation and feedback task list

**Task 1:** Evaluate – create an evaluation tool

**Task 2:** SWOT Analysis – self-evaluation

**Task 3:** KWHL – what have you learnt?

#### Task 1:

In groups of four, design a ten question evaluation tool based on the **design criteria checklist** that the class determined would ensure a successful trophy. All students should have a combination of a score and written feedback. So, you should include eight statements that allow the respondent to give a score and two questions that allow for an answer in a paragraph of text.

Use a digital application to create this evaluation tool. Examples of applications include Microsoft Word, Google Docs, Survey Monkey and Survey Planet. You use this evaluation tool to evaluate your own trophy and the trophies of the other members of the group. Make sure that you are honest but respectful when providing feedback. Everyone should complete four evaluations, including a self-evaluation.

Firstly, create a choice scale. Here are some examples:

0 = Strongly Disagree	0 = No	0 = Not evident	0 = Very Dissatisfied
1 = Disagree	1 = Maybe	1 = Evident	1 = Dissatisfied
2 = Unsure	2 = Yes		2 = Neither Satisfied or Dissatisfied
3 = Agree			3 = Satisfied
4 = Strongly Agree			4 = Very Satisfied

Then create eight statements that can be answered using the scale. An example is:

The model was successfully created using sustainable practices and/or recycled materials.

0 = Strongly Disagree  
1 = Disagree  
2 = Unsure  
3 = Agree  
4 = Strongly Agree

This type of question provides quantitative feedback, which can be counted and compared with other results.

Short answer questions allow for qualitative feedback. This is descriptive information that can offer insight and ideas for future projects. Make sure there is enough room to write a detailed response in the text box. A simple question to ask is:

List two design elements that you thought were effective, and explain why you liked these elements.

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Task 2:

Complete a **SWOT Analysis** (see p.20) on the technology skills that you applied to this unit of work. The **SWOT Analysis** is a widely used tool for analysing products or ideas. We will slightly modify it for this task, allowing it to be a powerful method of self-analysis of your technology skills.

SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. By completing the **SWOT Analysis**, you can identify your technology strengths and weaknesses. You can also list opportunities for learning or development in this subject. Through the completion of the threat component, you will identify aspects that could be detrimental to the development of technology knowledge, skills and attitude.

See the sample below for an example:

<b>Strengths</b> <ol style="list-style-type: none"><li>1. Gluing</li><li>2. Safety procedures</li><li>3. Straight line cutting</li></ol>	<b>Weaknesses</b> <ol style="list-style-type: none"><li>1. Maintaining a tidy work space</li><li>2. Curve cutting</li><li>3. Using a mouse for CAD</li></ol>
<b>Opportunities</b> <ol style="list-style-type: none"><li>1. I know how to use Tinkercad so I can create 3D models for the digital printer</li><li>2. I can use an evaluation tool after every project to help me improve my skills</li></ol>	<b>Threats</b> <ol style="list-style-type: none"><li>1. If I don't plan well, my projects won't be effective</li><li>2. Working in a group with my friends means that I am not always focused on the task</li></ol>

Reflect on the process of the planning and creation of the trophy model and think about how well you co-operated with other people and evaluated their work.

To find out how to complete a **SWOT Analysis** scan the QR Code or use the URL.

[www.itcpublications.com.au/qr/swtsau](http://www.itcpublications.com.au/qr/swtsau)



<b>Strengths</b>	<b>Weaknesses</b>
<b>Opportunities</b>	<b>Threats</b>

### Task 3:

Don't forget to complete the 'L (Learnt)' column of your **KWHL**. List a minimum of five things you have learned during this unit. Here are some suggestions:

- Software and hardware that you have mastered
- Technical terms and processes you can now utilise
- Tools and skills that you can now use efficiently
- Things that you have realised about yourself, e.g. how to ensure that you work well
- What you have learnt from other students



## Appendix A

# Women's Big Bash League announced by Cricket Australia, teams mirrored to men's competition

Updated 19 Feb 2015, 10:27am Thu 19 Feb 2015, 10:27am

Cricket Australia has confirmed eight teams will compete in the inaugural Women's Big Bash League (WBBL), to be launched in the 2015-16 season.

The eight teams will be aligned to the pre-existing teams competing in the men's Big Bash League (BBL), although the competition's format is still under discussion.

"We see T20 as the premium format of the women's game and the WBBL is an exciting concept that will increase the promotion and exposure of women's cricket," Cricket Australia chief executive James Sutherland said in a statement.

"We want cricket to be the number one sport for girls and women in Australia and we believe that the WBBL can assist this goal by creating an inspiring visible pathway for the next generation of players, fans and volunteers.

"Aligning the WBBL brands with the BBL brands will help cricket to appeal to a broader audience and gain greater exposure.

"Our existing female domestic competitions are arguably the strongest in the world, with the continued success of the top-ranked women's team, the Southern Stars, a testament to that.

We want cricket to be the number one sport for girls and women in Australia and we believe that the WBBL can assist this goal by creating an inspiring visible pathway for the next generation of players, fans and volunteers.

James Sutherland



**Photo:** The likes of Meg Lanning will have their talents showcased in the Women's Big Bash League in the 2015-16 season. (Getty Images: Brett Hemmings)

**Map:** Australia

"The WBBL will build on this foundation and will create a clear participation pathway for girls and their families, who are already engaged with cricket through the BBL."

Sutherland says the decision, endorsed by the CA board on Friday, is vindication for the work the Southern Stars do on and off the field.

"Players such as Meg Lanning, Alex Blackwell, Ellyse Perry and Alyssa Healy continue to be exceptional ambassadors for Australian cricket, both on and off the field," he said.

"They invest a huge amount of time and energy into their cricket and they each play an important role in promoting cricket as sport for all Australians.

"With the introduction of a WBBL, we want young girls to be able to dream about growing up and following in their footsteps."

# GET INVOLVED AND PLAY CRICKET, THERE IS SOMETHING FOR EVERYONE OF ALL ABILITIES.



**Indoor Cricket** is a fun, social & quick game of cricket that can be played all year round.

**Modified T20 Cricket** is 20 overs each just like the Big Bash League!

**Traditional Club Cricket** you play a full game of cricket.



To find out more visit [playcricket.com.au/junior-competition](https://playcricket.com.au/junior-competition)

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