VCE Vocational Major

**Unit 1 Striving Individuals**

Numeracy Curriculum

Support Materials

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# **Numeracy activities**

# **Numeracy Task 1 - Workspace**

Numeracy Context: Vocational (e)

Area of Study (AoS): 2 Shape & 3 Quantity and measure

|  |
| --- |
| Key knowledge and key skills |
| **AoS 2 KS 1** Describe and classify a range of different two-dimensional shapes and three-dimensional objects.  **AoS 2 KS 3** Create common and familiar two- and three-dimensional shapes and describe the relationship between these, including through the use of technology  **AoS 2 KS 4** Determine, name and describe patterns according to different properties of shapes such as those found in engineering, architecture and design, for example, bridges, buildings, and sculptures.  **AoS 3 KS 2 Undertake** common calculations to determine measurements of distance, perimeter, area, volume and capacity, related to common two-dimensional shapes and three-dimensional objects, using common units of measurement.  **AoS 3 KS 3** Convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms, millilitres, litres, and degrees Celsius. |

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| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Vocational (e)  Task 1- Activity 1.1 Shapes in workplace settings  Task 1- Activity 1.2 2D and 3D Shapes in the office  Task 1- Activity 1.3 Designing an office space and room summary brief  Task 1- Activity 1.4 Identifying Shapes in Architecture |

## Task 1- Workspace Activity 1.1 Shapes in workplace setting/s

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generated In this task, you will need to find and identify everyday shapes that exist in a vocational and recreational setting.

A purple icon with check marks

Description automatically generated **Part 1:** Shapes are in buildings and structures all around. You need to identify and name a range of 2D and 3D shapes that make up a space. Often the space will dictate the type of shapes you will see. Take a picture of your own context and list the shapes you can identify in the tables below.

**Worked example**

|  |
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| Name and circle a minimum of 10 objects in each setting which are 2D and 3D shapes.     * TV- Rectangle * Roof Support- Triangle * Water Bottle and Colored Pencil Tub- Cylinder * Fridge- Rectangle |

|  |
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| **Vocational (School, Workplace)** -**Add a photo of a vocational setting you use such as this classroom or your workplace.** |
| Add your image here. Make sure you circle the shapes in the image. |
| **List the shapes you can see in the photo that you have taken (2D and 3D).** |
|  |

Task 1- Workplace Activity 1.2 2D and 3D Shapes in the office

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1 Scenario:** ‘You have just become the manager of this office space and you want to update the decor. You want to identify shapes in the office that fit the space well for your next redevelopment of the space’.



|  |
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| **List the shapes you can see in the office layout photo. (2D and 3D)**  Hint: make sure you include the name of the object and what shape it is. |
|  |

## Task 1- Workplace Activity 1.3 Designing an office space

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Design an office space that can fit 4 desks and a large flat screen monitor to run training sessions. The room is a rectangle with dimensions of 4m x 5m. Use digital technology or an analogue method (not computer-related) to design your room. Use common 2 and 3 dimensional shapes in your design. Name the items/furniture in your room in the design and label the items measurements in both meters and centimeters. Use an appropriate scale for your designs.

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| **Room Design** |
| A purple icon with check marks  Description automatically generated |

A purple icon with check marks

Description automatically generated **Part 2:** Write a summary describing the room design and the shapes that have been utilised. In your summary calculate the area of floor space the items/furniture take up.

|  |
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## Task 1- Workplace Activity 1.4 Identifying shapes in architecture

A black background with a black square

Description automatically generated with medium confidenceA group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Many shapes make up structural elements in buildings and architecture.  Research some of the most common shapes that occur in structural elements. Select and find an example of one in your everyday life. **Example-** The Geelong regional library is a dome with an outer shell made of hexagons.

|  |
| --- |
| **Structural element** |
| A purple icon with check marks  Description automatically generated The structural element is .......  (Add a photo here) |

## Task 1 Workspace– Peer feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 1.1 and 1.2** | Identification of shapes in objects in a vocational and recreational setting. | Choose an item. |
| **Activity 1.3 and 1.4** | Research and identify common architectural elements in real-world settings. | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
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| AoS 2 KS 1 Describe and classify a range of different two-dimensional shapes and three-dimensional objects  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning:** You have uploaded a picture of either a vocational or recreational setting that you interact with. To bump it up, You still need to identify common shapes in these photos. | **Consolidating:** You have identified some common 2D shapes in your photos. To bump it up, you still need to identify some more shapes including 3D shapes. | **Achieving:** You have accurately identified common 2D and 3D shapes in your photos. To bump it up, you could identify some more 3D shapes. | **Excelling:** You have accurately identified both common and uncommon 2D and 3D shapes in both your vocational and recreational settings. Great work! |
| Teacher Comment: | | | | |

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| AoS 2 KS 4 Determine, name and describe patterns according to different properties of shapes such as those found in engineering, architecture and design, for example, bridges, buildings, and sculptures.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning:** You have uploaded a picture of an architectural building. To bump it up, you still need to identify an architectural element present in the photo. | **Consolidating:** You have uploaded a picture of an architectural building. To bump it up, you need to pick an architectural that is more commonly presented in the building. | **Achieving:** You have uploaded a common picture of an architectural building and correctly identified an architectural element found in that building. To bump it up, you need to correctly identify a major architectural element found in the building | **Excelling:** You have uploaded a picture of an architectural building and correctly identified a major architectural element found in the building. |
| Teacher Comment: | | | | |

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| AoS 2 KS 3- Create common and familiar two- and three-dimensional shapes and describe the relationship between these, including through the use of technology.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning:** You have designed an office space using technology. To bump it up, you need to go back and include 2D and 3D shapes in your design. | **Consolidating:** You have designed a basic office space using technology. You have included some 2D and 3D shapes in your design. You have labelled most of your 2D and 3D shapes. To bump it up, make sure everything is labelled. | **Achieving:** You have designed a well thought out office space using technology. You have used appropriate 2D and 3D shapes that are labelled correctly. To bump it up, you need to recheck if you have missed any shapes. | **Excelling:** You have designed a well-designed office space using technology. You have used 2D and 3D shapes and labelled them all correctly. Well done. |
| Teacher Comment: | | | | |

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| --- | --- | --- | --- | --- |
| AoS 3 KS 2 Undertake common calculations to determine measurements of distance, perimeter, area, volume and capacity, related to common two-dimensional shapes and three-dimensional objects, using common units of measurement.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning:** You have created an office space and have labelled some distances on your diagram. To bump it up you need to make sure you include distances, perimeter, and area of both the office space and the 2D and 3D shapes you have used. | **Consolidating:** You have labelled most distances on your office space design including the dimensions of the office space, 3D and 2D shapes. You have included perimeter, area, volume and/or capacity. To bump it up, you need to label all sections in your design. | **Achieving:** You have labelled all distances on your office space design including the dimensions of the office space, 3D and 2D shapes. You have included perimeter, area, volume and/or capacity. To bump it up, you need to add more examples of different types of measurement. | **Excelling:** You have labelled all parts of your office space design and shapes. You have accurately included multiple types of measurement including perimeter, area, volume and/or capacity. |
| Teacher Comment: | | | | |

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| AoS 3 KS 3 Convert with one-step calculations between common units of metric measurement such as millimeters, centimeters, metres, kilometres, grams, kilograms, milliliters, litres, and degrees Celsius.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to create a design. To bump it up, you need to include an appropriate scale for your diagram and show an ability to convert units of measurement - eg meters into centimetres. | **Consolidating:** You have created a basic office space design and provided an accurate scale. You have included measurements in both meters and centimetres. To bump it up, you need to add more details to your design. | **Achieving:** You have created a detailed office space design. You have provided an accurate scale and included measurements in both meters and centimetres. To bump it up, you need to add more details to your design. | **Excelling:** You have created a highly detailed office space design. You have provided an accurate scale and provided measurements both in meters and centimetres for all relevant areas. |
| Teacher Comment: | | | | |

# **Numeracy Task 2-Shapes**

Numeracy Context: Vocational (e)

Area of Study (AoS): 2 Shape

|  |
| --- |
| Key knowledge and key skills |
| **AoS 2 KS 1** Describe and classify common and familiar two- and three-dimensional shapes, including the use of appropriate technology  **AoS 2 KS 2** Determine and name patterns of common and familiar shapes such as those found in engineering, architecture and design, for example bridges, buildings, sculptures. |

|  |
| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Vocational (e)  Task 2- Activity 2.1 2D and 3D shapes  Task 2- Activity 2.2 Shape Investigation  Task 2- Activity 2.3 Shapes in Buildings and Structures  Task 2- Activity 2.4 Questions from Video |

## Task 2- Shapes Activity 2.1 2D and 3D Shapes

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated In this task you will identify common and familiar 2D and 3D shapes in the environment. You will be able to identify patterns in how shapes are used in buildings and the reason behind this. At the end of this task, you will be able to identify 2D and 3D shapes in the environment and explain how different shapes are used in building and construction due to their structure.

A purple icon with check marks

Description automatically generated **Part 1: 2D Shapes-** Fill out the table below and name all the 2D shapes shown in each section. Fill out the blank section with some other common 2D shapes.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **1. Shape Name:** Square | **2. Shape Name:** | **3. Shape Name:** | 1. **Shape Name:** |
|  |  |  |  |
| **5. Shape Name:** | **6. Shape Name:** | **7. Shape Name:** | **8. Shape Name:** |
| A purple icon with check marks  Description automatically generatedAdd image of 2D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D shape here. |
| **9. Shape Name:** | **10. Shape Name:** | **11. Shape Name:** | **12. Shape Name:** |

A purple icon with check marks

Description automatically generated **Part 2: 3D Shapes-** Find the 3D equivalent of each of the 2D shapes from part 1. Use technology to create or find a picture of the 3D Shape

**Worked examples**

|  |  |
| --- | --- |
| **2D Shape example**  Shape- Square | **3D Shape example**  Shape- Cube |

|  |  |  |  |
| --- | --- | --- | --- |
|  | A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. |
| **Example**  **1. Shape Name:** Cube | **2. Shape Name:** | **3. Shape Name:** | **4. Shape Name:** |
| A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. |
| **5. Shape Name:** | **6. Shape Name:** | **7. Shape Name:** | **8. Shape Name:** |
| A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. | A purple icon with check marks  Description automatically generated Add image of 3D shape here. |
| **9. Shape Name:** | **10. Shape Name:** | **11. Shape Name:** | **12.Shape Name:** |

## Task 2- Shapes Activity 2.2 Shape investigation

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** **Shape Investigation -** Use the time you have in your fitness sessions or even walking to and from your fitness sessions to take photos of 2D and 3D Shapes in the environment. Take the pictures on your phone and then add them into the table below when you get back from the fitness session. You will need to find at least 10 different shapes (5 2D and 5 3D shapes.)

|  |  |  |  |
| --- | --- | --- | --- |
| A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. |
| **1. Shape Name:** | **2. Shape Name:** | **3. Shape Name:** | **4. Shape Name:** |
| A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. |
| **5. Shape Name:** | **6. Shape Name:** | **7. Shape Name:** | **8. Shape Name:** |
| A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | | A purple icon with check marks  Description automatically generatedAdd image of 2D/3D shape here. | |
| **9. Shape Name:** | | **10. Shape Name:** | |

## Task 2- Shapes Activity 2.3 Shapes in buildings and structures

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** **Shapes in Buildings and Structures**- During your fitness sessions and even around the school take some pictures of the buildings and structures (in particular roof trusses or any load-bearing structures like bridges). Add a minimum of 3 photos in the space below.

|  |
| --- |
| A purple icon with check marks  Description automatically generatedAdd 3 images here. |

A purple icon with check marks

Description automatically generated **Part 2:** List down the shapes you can see in each of the photos that you have taken.

|  |
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A purple icon with check marks

Description automatically generated **Part 3:** What is the most common shape you can see in these structures? Why do you think this shape is used in buildings all the time?

|  |
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## Task 2- Shapes Activity 2.4 Video questions

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Description automatically generated **Part 1:** Watch this video about the strongest structures and answer the questions below (click on the link below to access the video).



**Video link:** [Strong Structures with Triangles | Design Squad (youtube.com)](https://www.youtube.com/watch?v=mBHJtWbsiaA)

1. What do the 3 S’s represent?

|  |
| --- |
| S=  S=  S= |

1. What is the strongest shape to use for structures? Explain why?

|  |
| --- |
|  |

1. What is another common 3D shape that is used in structures?

|  |
| --- |
|  |

1. Find some examples of triangles in structures around the school, take photos and insert below.

|  |
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|  |

## Task 2 Shapes - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 2.1** | 2D Shape table filled out and added 4 of their own 2D shape examples | Choose an item. |
| **Activity 2.1** | 3D Shape table filled out, examples of 3D shapes displayed using technology | Choose an item. |
| **Activity 2.2** | Shape investigation table complete with examples of both 2D and 3D shapes. | Choose an item. |
| **Activity 2.3 and 2.4** | Pictures of shapes in structures in the environment and questions answered from the video. | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 2 KS 1 Describe and classify common and familiar two- and three-dimensional shapes, including the use of appropriate technology.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have identified some shapes. To bump it up, you need to go back and fill in more information in the tables. | **Consolidating:** You have been able to identify some common 2D and 3D shapes. To bump it up, you need to provide more examples. | **Achieving:** You have been able to identify common 2D and 3D shapes and used appropriate technology to do so. To bump it up, you need to provide more examples. | **Excelling:** You have been able to correctly identify a variety of different 2D and 3D shapes. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 2 KS 2 Determine and name patterns of common and familiar shapes such as those found in engineering, architecture and design, for example bridges, buildings, sculptures.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions from the video. To bump it up, you need to explain what shapes are used in structures. | **Consolidating:** You have given an explanation of why certain shapes are used in structures and identified some of their properties. You have been able to answer all the questions from the video. To bump it up, you need to recheck your answers to make sure you have given the correct information. | **Achieving:** You have been able to accurately explain why shapes are used in structures and correctly identify their properties. You have been able to answer all questions from the video. To bump it up, you need to add more details to your responses. | **Excelling:** You have been able to explain in detail the shapes that are used in structures and accurately explain how their properties strengthen the structures. Excellent work! |
| Teacher Comment: | | | | |

# **Numeracy Task 3 – Tent Space**

Numeracy Context: Recreational (f)

Area of Study (AoS): 3 Quantity and measure

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| --- |
| Key knowledge and key skills |
| **AoS 3 KS 1** Estimate and measure familiar objects and distances by using measurement tools.  **AoS 3 KS 2** Undertake common calculations to determine measurements of distance, perimeter, area, volume and capacity, related to common two-dimensional shapes and three-dimensional objects, using common units of measurement.  **AoS 3 KS 3** Convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms, millilitres, litres, and degrees Celsius |

|  |
| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Recreational (f)  Task 3- Activity 3.1 Inquiry questions  Task 3- Activity 3.2 People Space  Task 3- Activity 3.3 How much space do tent manufacturers give people?  Task 3- Activity 3.4 How big are our tents?  Task 3- Activity 3.5 Arranging Tents  Task 3- Activity 3.6 Summary |

## Task 3- Tent Space Activity 3.1 Inquiry questions

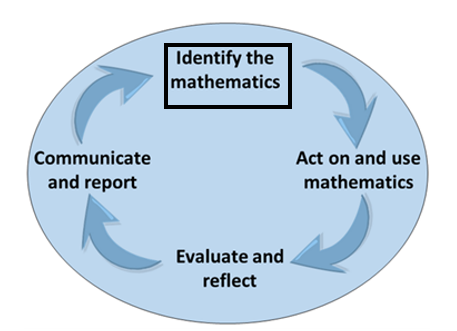
****A group of people in a room

Description automatically generated**Context –** Getting ready for a college camp or camping trip.

This task allows students to work through the numeracy ‘Problem Solving Cycle’.

**Task 3 Inquiry Question**

What is the minimum reasonable space per person to be comfortable in a tent?



**Identify the mathematics:** Recognise, select and interpret the mathematical information embedded in a real-world context and decide what mathematics to use.

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** What does the inquiry question mean? Spend some time discussing this. Take notes in the space provided below.

|  |
| --- |
|  |

A purple icon with check marks

Description automatically generated **Part 2:** From your discussion, please complete the table below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Key Words** | **Possible meaning** | **How much? What units?** | **How could we measure? What would we use?** | **How could we collect data? From whom?** |
| **Minimum** |  |  |  |  |
| **Reasonable** |  |  |  |  |
| **Comfortable** |  |  |  |  |
| **Space** |  |  |  |  |

**Part 3:** In thinking about this inquiry question, what other questions come to mind? Do you have any more?

* How much space does a person need to sleep comfortably?
* Will some people have issues with close proximity to other people?
* Do people sleep in different positions?
* Will this make a difference to the space needed?
* How much space do I need to sleep?
* How much do other people need to sleep?
* How can I measure the space needed to sleep?
* How big is a tent?
* Can I stand up in the tent?
* Will there be space to store things?
* How many people fit comfortably in a tent? (without having a falling out)

|  |
| --- |
| A purple icon with check marks  Description automatically generated Add any other questions here. |

A purple icon with check marks

Description automatically generated **Part 4:** Answer the following question prompts below.

|  |
| --- |
| **What do we need to know?** |
|  |
| **How can we find out?** |
|  |
| **What tools do we have access to?** |
|  |

A purple icon with check marks

Description automatically generated **Part 5:** List the jobs that need to be done in the space below.

|  |
| --- |
|  |

## Task 3- Tent Space Activity 3.2 People space

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1: People Space-** You are going to establish how much space (area and height) you think is needed for comfortable camping.

Firstly, you are going to measure the smallest amount of space needed for you, and others, to **sleep and stand** in when. Then complete the table below.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Lying flat** | **When curled up** | **When standing up** | **When crouched** |

|  |  |  |
| --- | --- | --- |
| A diagram of a mathematical process  Description automatically generated | | |
| **What tools are you going to use?** |  |  |
| **Measuring equipment:** | Digital? | Analogue? |
| **Are there any useful formulas?** |  | |
| **What units will you use?** |  | |
| **How accurate will you need to be? Justify your answer….** |  | |

A purple icon with check marks

Description automatically generated **Part 2:** Now measure the amount of space needed for at least 4 more people. Record your measurements in the table below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | |
| **Person**  **(Name)** | **Lying Flat** | | **Curled Up** | | **Height** | |
| **Length** | **Width** | **Length** | **Width** | **Standing straight** | **Crouched but still able to get dressed.** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

A purple icon with check marks

Description automatically generated **Part 3:** Use the average formula to find the average measurements.

A black text on a white background

Description automatically generated



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Average (mean)** | **Lying flat** | | **Curled Up** | | **Height** | |
| **Length** | **Width** | **Length** | **Width** | **Stood up** | **Crouched** |
| **--**  **Mean (x)** |  |  |  |  |  |  |

A purple icon with check marks

Description automatically generated**Part 4:** Considering all the information you have gathered above, answer the following questions below.

1. What do you think would be a reasonable sized **area** for someone to sleep in comfortably? Complete the table below.

(Hint- consider the averages you have identified above and use the ‘area’ formula provided below for a rectangle to help your estimation and explanation).

A black rectangle with a white background

Description automatically generated

|  |  |
| --- | --- |
| **Length** |  |
| **Width** |  |
| **Area** |  |

1. I think this is a reasonable sized area for someone to sleep in because…

|  |
| --- |
|  |

1. What do you think would be a reasonable **height** for someone to change clothing comfortably?

|  |  |
| --- | --- |
| **Height** |  |

1. I think this is a reasonable sized area for someone to sleep in because…

|  |
| --- |
|  |

A purple icon with check marks

Description automatically generated **Part 5: Evaluation of area-** Complete the activities and questions below.

1. **Estimate** using the measurements that you have identified above (length and width), **estimate** (without using a tape measure) what this would look like using cones. Add a picture of your estimation in the space below.

|  |
| --- |
|  |

1. Leave out the estimation cones. Using the measurements that you have identified above (length and width), **measure** (using a tape measure) what this would look like using different coloured cones.

|  |
| --- |
|  |

1. Ask different people to lie down in it. Is this enough room? Add a photo in the space below.

|  |
| --- |
|  |

1. Is this enough area?

|  |
| --- |
|  |

A purple icon with check marks

Description automatically generated **Part 6: Evaluation of height-** Complete the activities and questions below.

1. On the wall, mark out the maximum height you have chosen to be comfortable to change. Try taking a coat/jumper off and on while crouched below this height. (Take a photo of you trying to put clothing on or off and add below. Make sure the maximum height is clear in your photo)

|  |
| --- |
|  |

1. Is this enough space?

|  |
| --- |
|  |

## Task 3- Tent Space Activity 3.3 How much space do tent manufacturers give people?

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1: How much space do tent manufacturers give people?** You are now going to compare your measurements from part 5-10 with what tent manufacturers actually provide. Then, you will need to decide whether tent manufacturers are generous enough with their designs. Complete the following activities and questions below.

1. Research the following questions. You may choose any tent manufacturer you wish. Complete the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Search details and URL** | **Details of tent size** | **Calculate the area per person** | **What is the maximum height given?** |
| **How big is a 1-man tent?**  **(add web address here for source.)** |  |  |  |
| **How big is a 2-man tent?**  **(add web address here for source.)** |  |  |  |
| **How big is a 3-man tent?**  **(add web address here for source.)** |  |  |  |
| **How big is a 4-man tent?**  **(add web address here for source.)** |  |  |  |

**Hint: 1 foot is approximately 30.5cm**

1. Are the details in a useful format? Did you need to do any conversions? Did you use any formulas?

|  |
| --- |
|  |

1. Research any maths you needed to interpret the information given by manufacturers.

|  |
| --- |
|  |

1. On average, how much space (area and height) are manufacturers giving 1 person?

|  |
| --- |
|  |

1. In your opinion, is this big enough?

|  |
| --- |
|  |

1. How do the manufacturer’s measurements compare with your results from Task 3- Activity 3.2 People space?

|  |
| --- |
|  |

## Task 3- Tent Space Activity 3.4 How big are our tents?

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

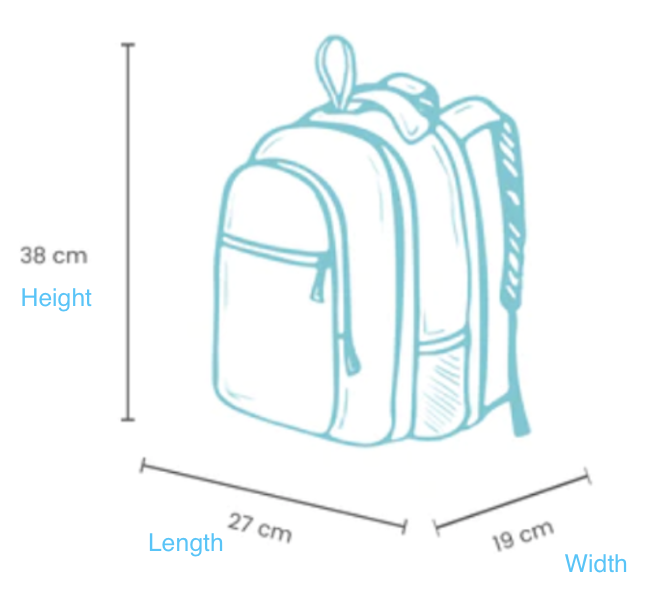
Description automatically generated **Part 1: How big are our tents?**

Now that you have an idea of how much space you think you’ll need, and how much space tent manufacturers allow, it’s time to evaluate the tents that you are going to use.

**The tent bag**

Tents generally come in bags. So, before you put the tent up, it’s worth seeing how big the bag is. This information will be useful later in the activity. Sketch the shape of the bag the tent comes in and measure its size.

|  |  |  |
| --- | --- | --- |
| **Think about:**  **A diagram of a mathematical process  Description automatically generated** | | |
| **What tools are you going to use?** |  |  |
| **Measuring equipment:** | Digital? | Analogue? |
| **Are there any useful formulas?** |  | |
| **What units will you use?** |  | |
| **How accurate will you need to be? Justify your answer….** |  | |

**Example of sketch labelled with measurements.**

A diagram of a mathematical process

Description automatically generated

**Act on and use mathematics:** Perform mathematical actions and processes to complete a task – this includes the use and application of a range of technologies.

A purple icon with check marks

Description automatically generated **Part 2:** Complete the following activities and questions below.

1. 3D Tent bag sketch. Label with your measurements.

|  |
| --- |
|  |

1. Measure its dimensions and fill in the table below.

|  |  |
| --- | --- |
| **Length** |  |
| **Width** |  |
| **Height** |  |

1. What 3D shape is this closest to?

|  |
| --- |
|  |

1. Open the tent bag. List all the parts below for your tent (include description and numbers).

|  |
| --- |
|  |

A purple icon with check marks

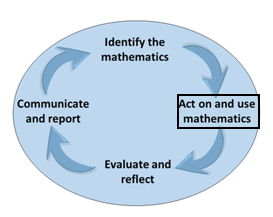
Description automatically generated **Part 3: Putting the tent up.**

Your job now is for your group to put up the tent. However, tent instructions provided by manufacturers aren’t always great. So, you’re also going to write your own set of instructions. They need to be good enough for another group to be able to follow. Another group can then provide feedback so that you can improve your instructions.

|  |
| --- |
| **Before the tent is set up.** |
| A purple icon with check marks  Description automatically generated **Preparation**  **Think/Discuss:**   * Do you have the manufacturer’s instructions? * Are they clear? * Do you have all the pieces needed?   **Recap of the task:** You will need to write your own instructions about HOW to put the tent up.  **Think/Discuss:**   * What will you need to help you make a note of instructions as the tent is being put up? * Who will do what role? |

|  |
| --- |
| **During the tent set up.** |
| Put up the tent, following the instructions. |
| Take photos as you go. |
| Use whatever application you like to write a set of instructions that are better than those provided by the manufacturer. |
| Take a screenshot of your instructions below and add in the space below. |
| A purple icon with check marks  Description automatically generated Add your own instructions here. |

|  |  |  |
| --- | --- | --- |
| **During measuring the tent- externally.** | | |
| **Think about:**   * What will you need to measure? * What tools could you use to measure? * How accurate are you going to be?   You need to include the approximate space that the tent requires when fully up, including guy ropes and pegs.  **A diagram of a mathematical process  Description automatically generated** | | |
| **What tools are you going to use?** |  |  |
| **Measuring equipment:** | Digital? | Analogue? |
| **Are there any useful formulas?** |  | |
| **What units will you use?** |  | |
| **How accurate will you need to be? Justify your answer….** |  | |



1. Sketch the 3D shape of the tent below.

|  |
| --- |
|  |

1. Measure its dimensions and fill in the table below.

|  |  |
| --- | --- |
| **Length** |  |
| **Width** |  |
| **Height** |  |

1. What 3D shape is this closest to?

|  |
| --- |
|  |

1. Sketch the 2D shape of the tent below. Hint-the amount of space needed on the ground that the tent takes up (including guy ropes and pegs).

|  |
| --- |
|  |

1. Measure its dimensions and fill in the table below.

|  |  |
| --- | --- |
| **Length** |  |
| **Width** |  |
| **Height** |  |

1. What 2D shape is this closest to?

|  |
| --- |
|  |

1. Research how to find the area of this shape (s).

|  |
| --- |
| Area= |

8. Calculate the area of this 2D shape.

|  |
| --- |
|  |

|  |  |  |
| --- | --- | --- |
| **During measuring the tent- internally.** | | |
| Remember the inquiry question- you are evaluating the amount of space needed for people to camp comfortably. So, you need to know how much space we have in the tent.  **Think about:**   * What will you need to measure? * What tools could you use to measure? * How accurate are you going to be?   You need to include the approximate space that the tent requires when fully up, including guy ropes and pegs.  **A diagram of a mathematical process  Description automatically generated** | | |
| **What tools are you going to use?** |  |  |
| **Measuring equipment:** | Digital? | Analogue? |
| **Are there any useful formulas?** |  | |
| **What units will you use?** |  | |
| **How accurate will you need to be? Justify your answer….** |  | |

A diagram of a mathematical process

Description automatically generated

9. Create a bird’s-eye-view sketch of the 2D area that the inside of the tent takes up. Mark on where the exits/entrances are.

|  |
| --- |
|  |

10. Complete the table below, and also make sure these measurements are on your sketch too.

|  |  |
| --- | --- |
| **Length** |  |
| **Width** |  |

1. What 2D shape is this closest to?

|  |
| --- |
|  |

1. Research how to find the area of this shape (s).

|  |
| --- |
| Area= |

13. Calculate the area of this 2D shape.

|  |
| --- |
|  |

1. What is the perimeter of the tent? Hint-perimeter = length + length + width + width

**Example**

Width

Width

Length

Length

|  |
| --- |
|  |

1. Find the approximate number of people this tent could fit comfortably.

**Formula**

**A black line with black text

Description automatically generated**

|  |
| --- |
|  |

16. Is your answer accurate? reliable? appropriate?

|  |
| --- |
|  |

17. How many people can actually sleep in this size tent comfortably?

|  |
| --- |
|  |

**Don’t forget to pack your tent away!**

|  |
| --- |
| **Reflect and update your instructions.** |
| Finally, you are going to refine your group’s set of instructions. Use your peer feedback to make these improvements. |
| A purple icon with check marks  Description automatically generated Add your final instructions here. |

## Task 3- Tent Space Activity 3.5 Arranging Tents-reflection symmetry

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Some people like their campsites to be symmetrical.

A white paper with black text

Description automatically generated with medium confidence

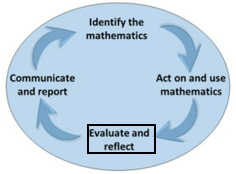
Below is a partially completed tent arrangement with 6 tents so far. Complete the rest of the camp site using the line symmetry to reflect the arrangement.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. Explain how your design has reflection symmetry.

|  |
| --- |
| A purple icon with check marks  Description automatically generated |

## Task 3- Tent Space Activity 3.6 Summary



**Evaluate and reflect:** Check and reflect on the mathematical problem-solving processes and outcomes in relation to the real-world context.

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1: Recap of the Inquiry Question:** What is the minimum reasonable space per person to be comfortable in a tent?

You have now studied many aspects of camping, including the sizes of both tents and campsites. You are now in a really good position to answer the inquiry question.

1. Using your findings, draw a scale diagram (bird’s eye view) of the ideal 4-person tent. You may use any mathematical shape that you like and be as creative as you like.

**Make sure you label:**

Sleeping area for each person

Personal storage space for each person

Communal area (shared space; for getting in and out)

The key for the scale used on the diagram.

|  |
| --- |
| A purple icon with check marks  Description automatically generated Add your design here. |

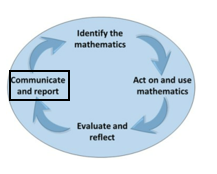
A purple icon with check marks

Description automatically generated **Part 2:** How much space did you allow? Complete the following table below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Sections of the tent** | **Dimensions (lengths)** | **Area** | **% Area of the entire tent** |
| **Sleeping space 1** |  |  |  |
| **Personal storage space 1** |  |  |  |
| **Sleeping space 2** |  |  |  |
| **Personal storage space 2** |  |  |  |
| **Sleeping space 3** |  |  |  |
| **Personal storage space 3** |  |  |  |
| **Sleeping space 4** |  |  |  |
| **Personal storage space 4** |  |  |  |
| **Communal (shared) space** |  |  |  |
|  | **Totals:** |  | **100%** |

A purple icon with check marks

Description automatically generated **Part 3:** Complete the following tables about the mathematical tools and formula you have used in this task.



**Communicate and report:** Use a combination of informal and formal mathematical representations to document and report outcomes and results.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tool used** | **When to use** | **Information needed** | **Accuracy level** | **How likely are you to use this tool again? (Rate 1-5)** | **Add to my numeracy toolkit slides?** |
| **Calculator** |  |  |  |  |  |
| **Tape measure** |  |  |  |  |  |
| **Tape Measure app** |  |  |  |  |  |

A purple icon with check marks

Description automatically generated **Formulas used:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Formula used** | **When to use** | **Information needed** | **Accuracy level** | **How likely are you to use this tool again? (Rate 1-5)** | **Add to my numeracy toolkit slides?** |
| Area formulas | Find the area of a particular shape | Length  width | Nearest cm |  | Yes – I created a placemat of common shapes areas. |
| Average formula |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## Task 3 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 3.1** | What does the question mean? | Choose an item. |
| **Activity 3.2** | People Space | Choose an item. |
| **Activity 3.3** | How much space do tent manufacturers give people? | Choose an item. |
| **Activity 3.4** | How big are our tents? | Choose an item. |
| **Activity 3.5** | Arranging Tents | Choose an item. |
| **Activity 3.6** | Summary | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 1 Estimate and measure familiar objects and distances by using measurement tools.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have not shown evidence of being able to estimate and measure familiar objects and distances by using measurement tools. To bump it up, you need to attempt all sections of this task. | **Consolidating:** You have answered all questions correctly and demonstrated an understanding of estimating and measuring familiar objects and distances by using measurement tools. To bump it up, you show more examples of how you use the different measurement tools. | **Achieving:** You have answered all questions correctly and demonstrated an understanding of estimating and measuring objects and distances by using measurement tools in a variety of different ways. To bump it up, you need to more details to your responses. | **Excelling:** You have answered all questions correctly and shown an extensive understanding of estimating and measuring objects and distances by using measurement tools in a variety of different ways. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 2 Undertake common calculations to determine measurements of distance, perimeter, area, volume and capacity, related to common two-dimensional shapes and three-dimensional objects, using common units of measurement.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have not shown enough evidence of using a formula to find a solution. To bump it up, you need to attempt all sections of this task. | **Consolidating:** You have been able to demonstrate an understanding of using common calculations to find a solution. Most of your answers are correct and you have shown your workings out. To bump it up, check over your answers to see if they are correct. | **Achieving:** You have been able to demonstrate an understanding of using formulas to find a solution. You have shown the ability to use a range of basic formula. All your answers are correct and you have shown your workings out. To bump it up, you need to show more details of your working out. | **Excelling:** You have been able to use a number of different formulas to find solutions. You have shown detailed working out for each question. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 3 Convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms, millilitres, litres, and degrees Celsius.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to convert using one-step calculations. To bump it up, you need to go back and make sure that you are using the correct formula and that your answers are correct. | **Consolidating:**  You have shown an understanding of converting using one-step calculations between common metrics of measurements. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have demonstrated an understanding of converting using one-step calculations between a range of common metrics of measurement. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of converting using one-step calculations of a range of metrics of measurement. You have shown all your workings and all your conversions are correct. Great work! |
| Teacher Comment: | | | | |

# **Numeracy Task 4 – Distance, Time and percentage**

Numeracy Context: Health (d)

Area of Study (AoS): 1 Number & 4 Relationships

|  |
| --- |
| Key knowledge and key skills |
| **AoS 1 KS 1** Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  **AoS 1 KS 3** Solve problems involving common fractions and decimals, for example half, quarter, third, fifth and equivalent decimals.  **AoS 1 KS 4** Calculate common percentages of numbers and increase and decrease numbers by common percentages.  **AoS 4 KS 4** Apply simple formulae to find solutions to everyday problems such as amounts. |

|  |
| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Health (d)  Task 4- Activity 4.1 Collecting Data – Distance  Task 4- Activity 4.2 Collecting Data – Time Spent Active  Task 4- Activity 4.3 Distance Calculations  Task 4- Activity 4.4 Activity time Calculations and Percentages  Task 4- Activity 4.5 Activity time percentage increase & decrease |

Task 4- Distance, time and percentage Activity 4.1 Collecting data- distance

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated In this task you will determine the distance to a venue, and time spent training/working and calculate associated fractions and percentages. At the end of this task, you will be able to calculate fractions and percentages of distance to the facility/venue and time spent on the activity. You need to calculate the walking distance to your venue and weekly activity/action timeto then solve associated problems.

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** When walking to the Tuesday afternoon fitness sessions use a piece of technology to find out the distance it is to your fitness session. Eg. Garmin Connect, Stravia, Google Maps, timer.

Enter your data below.

**Destination-** Include what wellbeing/fitness session you attend.

|  |
| --- |
| A purple icon with check marks  Description automatically generated |

**Distance (m):**

|  |
| --- |
| A purple icon with check marks  Description automatically generated |

## Task 4- Distance, time and percentage Activity 4.2 Collecting data- time spent active

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Using venue clocks, your own phone, stopwatch etc record your active minutes in this session.

**Active Participation time-** Time started activity.

|  |
| --- |
|  |

**Active Participation time**-Time finished activity

|  |
| --- |
|  |

**Total time spent at the activity.**

|  |
| --- |
|  |

## Task 4- Distance, time and percentage Activity 4.3 Distance calculations

A purple icon with check marks

Description automatically generated **Part 1:** Using the data you collected in Task 4- Activity 4.1 Collecting data- distance complete your own distance calculations in the table below.

|  |
| --- |
| A green neon sign with a person on a computer  Description automatically generated **Worked Example: Mr. Gleeson’s Walk to Woolies at The Dune Village.**  **Distance:** 1000m or 1km **calculate the below fractions of that distance**  **Half (½, 0.5, 50%) =** 500m (1000 x 0.5)  **Quarter (¼, 0.25, 25%) =** 250m (1000 x 0.25)  **Third (⅓, 0.333, 33% = 333.3m** (1000 x 0.3333)  **Fifth (⅕, 0.20, 20%)** = 200m (1000 x 0.2) |

|  |  |
| --- | --- |
| **Distance walked:** |  |
| Calculate the below fractions of that distance. |  |
| Half (½, 0.5, 50%) = |  |
| Quarter (¼, 0.25, 25%) = |  |
| Third (⅓, 0.333, 33%) = |  |
| Fifth (⅕, 0.20, 20%) = |  |

## Task 4- Distance, time and percentage Activity 4.4 Activity time calculations and percentages

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Using the data you collected in Task 4- Activity 4.2 Collecting data- active time complete your own calculations and percentages in the table below.

|  |
| --- |
| A green outline of a person with a computer  Description automatically generated **Worked Example Mr. Monk’s Activity time percentage calculations.**  Total time spent at activity - 40 minutes  **Total workout time calculation - 50% of this** (to convert to a decimal just divide the % amount by 100)  **Working out:** 40 x 0.50 = 20 min actual work out time  **Total workout time calculation - 15% spent talking** (15/100 is 0.15)  **Working out**: 40 x 0.15 = 6 min spent talking! |

|  |  |
| --- | --- |
| **Total time spent at activity:** | A purple icon with check marks  Description automatically generated Add your response here. This can be copied from Task 4-Actvity 4.2 |
| **Total workout time calculation - (70% of this) (to convert to a decimal just divide the % amount by 100)** | A purple icon with check marks  Description automatically generated Make sure you show clear workings out for each step. Refer to the example above to support you with this. |
| **Total workout time calculation - (10% spent talking)** | A purple icon with check marks  Description automatically generated Add your response here and include you working out. |
| **Total workout time calculation - (20% spent recovering/resting)** | A purple icon with check marks  Description automatically generated Add your response here and include you working out. |

## Task 4- Distance, time and percentage Activity 4.5 Activity time percentage increase and decrease

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Using the data you collected in Task 4- Activity 4.2 Collecting data- active time complete your own calculations for activity time percentage increases and decreases in the table below.

|  |
| --- |
| A green outline of a person with a computer  Description automatically generated **Worked Example Mr. Monk’s activity time percentage increase and decrease.**  Total time spent at activity - 40 minutes  **I want to increase this total time spent by 50%** (work out what 50% of 40 is and then add this to the original amount)  **Working out:** 40 x 0.50 (50%) = 20. 20 + 40(original amount) = 60 min is my new time!  **I want to decrease this total time spent by 15%** (work out what 15% of 40 is and subtract this from the original amount)  **Working out**: 40 x 0.15 = 6. 40(original amount) - 6 = 34min is my decreased time |

|  |  |
| --- | --- |
| **Total time spent at activity:** | A purple icon with check marks  Description automatically generated Add your response here. This can be copied from Task 4-Actvity 4.2 |
| **Increase your total time active by 30%** | A purple icon with check marks  Description automatically generated Make sure you show clear workings out for each step. Refer to the example above to support you with this. |
| **Decrease your total time active by 5%** | A purple icon with check marks  Description automatically generated Add your response here and include you working out. |
| **Increase time spent by 75%** | A purple icon with check marks  Description automatically generated Add your response here and include you working out. |
| **Decrease time spent by 25%** | A purple icon with check marks  Description automatically generated Add your response here and include you working out. |

## Task 4 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 4.1** | Collection of data from Tuesday Fitness - Distance to venue | Choose an item. |
| **Activity4.2** | Collection of data from Tuesday Fitness - Time Spent Active | Choose an item. |
| **Activity 4.3** | Calculating fractions and percentages of distance walked | Choose an item. |
| **Activity4.4** | Calculating percentages of Time Spent Active | Choose an item. |
| **Activity4.5** | Calculating % increase/decrease of Time Spent Active | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 1 Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to accurately demonstrate an understanding of reading numbers, place value and decimal place. Go back and ensure that you have shown your working out and that your answers are correct. | **Consolidating:** You have demonstrated a basic understanding of reading numbers, place values and decimal places. You have shown some working out and most of your answers are correct. To bump it up, you need to add further details of your working and out. Then check over you answers to see if they are correct. | **Achieving:** You have demonstrated an understanding of reading numbers, place values and decimal place values. You have some of your working out and all your answers are correct. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated a high level of understanding of reading numbers, place values and decimal place values. You have shown your workings and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 3 Solve problems involving common fractions and decimals, for example half, quarter, third, fifth and equivalent decimals.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to show evidence of being able to solve problems involving common fractions and decimals, for example; half, quarter, third, fifth and equivalent decimals. | **Consolidating:** You have shown some evidence of being able to solve problems involving common fractions and decimals, for example; half, quarter, third, fifth and equivalent decimals. To bump it up, you need to complete all parts of the activities. | **Achieving:** You have shown evidence of being able to solve problems involving common fractions and decimals, for example; half, quarter, third, fifth and equivalent decimals. To bump it up, you need to add further details of your working out. | **Excelling:** You have shown detailed evidence of being able to solve problems involving common fractions and decimals, for example; half, quarter, third, fifth and equivalent decimals. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 4 Calculate common percentages of numbers and increase and decrease numbers by common percentage.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to show evidence of how to calculate common percentages of numbers and increase and decrease numbers by common percentages. | **Consolidating:** You have shown some evidence of how to calculate common percentages of numbers and increase and decrease numbers by common percentages. To bump it up, you need to complete all parts of the activities. | **Achieving:** You have shown evidence of how to calculate common percentages of numbers and increase and decrease numbers by common percentages. To bump it up, you need to add further details of your working out. | **Excelling:** You have shown detailed evidence of how to calculate common percentages of numbers and increase and decrease numbers by common percentages. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 4 Apply simple formulae to find solutions to everyday problems such as amounts.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to apply simple formulae to find a solution. To bump it up, you need to include your working out and check that all your answers are correct. | **Consolidating:** You have demonstrated some evidence of using formulae to find solutions to everyday problems. You have shown some working out. To bump it up, you need to complete all parts of the activities and include further details of your working out. | **Achieving:** You have demonstrated an understanding of using formulae to find solutions to problems. You have shown some of your working out. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated an understanding of using formulae to find solutions to complex problems. You have shown detailed working out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

# **Numeracy Task 5- Stopwatch, Decimal Places, Ratios and Proportion**

Numeracy Context: Health (d)

Area of Study (AoS): 1 Number & 4 Relationships

|  |
| --- |
| Key knowledge and key skills |
| **AoS 1 KS 1** Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  **AoS 1 KS 5** Use simple proportions and divide quantities by a simple ratio such as 1 to 2.  **AoS 4 KS 2** Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems.  **AoS 4 KS 3** Use and apply rates in familiar situations such as $/m, km/hr. |

|  |
| --- |
| Task Checklist |
| Task 5- Activity 5.1 ‘10 Second’ Stopwatch Challenge’ and ordering numbers  Task 5- Activity 5.2 250m Bike or Rower Challenge  Task 5- Activity 5.3 Rounding to 2 Decimal Places and difference between records  Task 5- Activity 5.4 Ratios and proportions |

## Task 5- Stopwatch, decimal places, ratios and proportion Activity 5.1 10 second stopwatch challenge and ordering numbers

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated In this task, you will order numbers, identify place value and round to two decimal numbers. You will be able to order numbers from nearest to furthest (to a set number) and from fastest to slowest (order). You will also confidently round numbers to 2 decimal places. You will need to use a stopwatch, rowing machine or cardio bike to collect data.

****

A purple icon with check marks

Description automatically generated **Part 1:** Aim is to stop the stopwatch at exactly 10 seconds 10.00. Enter your data in the table below.

|  |  |
| --- | --- |
| **Attempt** | **Result** |
| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **5** |  |

A purple icon with check marks

Description automatically generated **Part 2:** Using the measurements you have just collected in part 1, order them from nearest to furthest to 10.00. Hint- you might need to use the tenths and hundreds to be exact.

|  |  |
| --- | --- |
|  | 10.00 |
|  |  |
|  |  |
|  |  |
|  |  |

## Task 5- Stopwatch, decimal places, ratios and proportion Activity 5.2 250m Bike or rower challenge

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated  **Part 1:** The aim is to see who records the fastest 250m. While you are at the gym, reset the clock, start from zero and go as hard as you can for 250m and record your time in the table below. Challenge 3 friends and record your placings to see who makes the podium.

**Fun Fact:** 16.949 seconds is the Australian record for 250m from a stand start on an actual bike set by Leigh Hoffman.

**Worked Example**

|  |  |  |
| --- | --- | --- |
| **Name** | **Time** | **Placing** |
| Leah | 17.78 | 2nd |
| Jo | 19.99 | 3rd |
| Nicola | 16.35 | 1st |

|  |  |  |
| --- | --- | --- |
| **Name** | **Time** | **Placing** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Task 5- Stopwatch, decimal places, ratios and proportion Activity 5.3 Rounding to 2 decimal places and difference between records

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated  **Part 1:** The 100m world record is Usain Bolt with 9.576. All records are rounded to 2 decimal places so his reads 9.58. Complete the table below to round all previous records to the necessary 2 decimal places.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Year** | **Recorded time**  **(3 Decimal Places)** | **Official Record**  **(2 Decimal Places)** |
| **Usain Bolt** | 2009 | 9.576 | 9.58 |
| **Usain Bolt** | 2008 | 9.683 |  |
| **Asafa Powell** | 2007 | 9.735 |  |
| **Justin Gatlin** | 2006 | 9.766 |  |
| **Asafa Powell** | 2005 | 9.768 |  |

A purple icon with check marks

Description automatically generated **Part 2:** Answer the questions below.

1. Looking at the above figures in part 1, exactly how much did Gatlin in 2006 beat Powell’s world record by?

|  |
| --- |
|  |

1. Looking at the above figures in part 1, what is the time difference between Powell’s record in 2005 to Bolt’s current record?

|  |
| --- |
|  |

## Task 5- Stopwatch, decimal places, rations and proportion Activity 5.4 Ratios and proportions

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated  **Part 1:** Ratios and proportions are often used in many areas of life. They are often used in sport to show comparisons. Answer the following questions below.

**Ratio worked examples**

|  |
| --- |
| **1. In a basketball training session Amir made 100 shots, he scored 50 times.**  This can be written as a ratio of 100: 50  Simplified it can be written as 2: 1  **2. At a school basketball game, the Tigers had 80 supporters and the Bullets had 100 supporters.**  This can be written as a ratio of 80: 100  Simplified it can be written as 4: 5 |

1. At the school athletics day, Kirra ran in the 400m sprint and later ran in the 2000m race. Write this as a simplified ratio.

|  |
| --- |
|  |

1. There was a sausage sizzle running on the athletics day, 60 beef sausages and 180 pork sausages were sold. Write this as a simplified ratio.

|  |
| --- |
|  |

1. In the time it took Will to run 600m, Ben ran 450m. Write this as a simplified ratio.

|  |
| --- |
|  |

1. Simplify the ratios below:

12: 20

|  |
| --- |
|  |

80: 20

|  |
| --- |
|  |

50: 75

|  |
| --- |
|  |

32: 8

|  |
| --- |
|  |

**Proportion worked example**

|  |
| --- |
| **At the school sausage sizzle, 5 sausages and bread cost $12.50. How much would 8 cost?**  **Calculate the cost of one sausage in bread**  12.50 5 = $2.50  8 x 2.50 = $20  8 sausages would cost $20 |

1. 40 sports bibs cost $120. How much would 60 bibs cost?

|  |
| --- |
|  |

1. Brod was looking to buy some new soccer balls for his soccer team. He read in a catalogue that 12 balls cost $300. How much would 10 balls cost Brod?

|  |
| --- |
|  |

## Task 5 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 5.1** | 10 second stopwatch challenge and ordering numbers tables | Choose an item. |
| **Activity 5.2** | 250m Bike/rower times recorded and placings | Choose an item. |
| **Activity 5.3** | Rounding of world records to 2 decimal places and time difference between records | Choose an item. |
| **Activity 5.4** | Ratios and proportions questions | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 1 Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show that you can accurately demonstrate an understanding of reading numbers, place value and decimal place values. | **Consolidating:** You have demonstrated a basic understanding of reading numbers, place value and decimal place values. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have demonstrated an understanding of reading numbers, place value and decimal place values. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have demonstrated a high level of understanding of reading numbers, place value and decimal place values. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 5 Use simple proportions and divide quantities by a simple ratio such as 1 to 2.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show that you can accurately use simple proportions and divide quantities by simple ratios. | **Consolidating:** You have shown a basic understanding of simple proportions and dividing quantities by simple ratios. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of proportions and dividing quantities by ratios. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of proportions and dividing quantities by ratios. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 2 Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show that you can accurately demonstrate simple algebra to solve everyday problems. | **Consolidating:** You have shown a basic understanding of algebra to find solutions to everyday problems. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of algebra to find solutions to problems. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding algebra to find solutions to a range of problems. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 3 Use and apply rates in familiar situations such as $/m, km/hr.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show that you can accurately use and apply rates in familiar situations. | **Consolidating:** You have shown a basic understanding of using and applying rates in familiar situations. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of using and applying rates in a range of situations. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of using and applying rates in a range of situations. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

# **Numeracy Task 6 Walking Speed**

Numeracy Context: Recreational (f)

Area of Study (AoS): 3 Quantity and measure & 4 Relationships

|  |
| --- |
| Key knowledge and key skills |
| **AoS 3 KS 1** Estimate and measure familiar objects and distances by using measurement tool.  **AoS 3 KS 3** Convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms, millilitres, litres, and degrees Celsius.  **AoS 4 KS 2** Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems.  **AoS 4 KS 3** Use and apply rates in familiar situations such as $/m, km/hr.  **AoS 4 KS 4** Apply simple formulae to find solutions to everyday problems such as area, amounts or costs. |

|  |
| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Recreational (f)  Task 6- Activity 6.1 Collecting Data and converting measurements  Task 6- Activity 6.2 Calculating Speed  Task 6- Activity 6.3 Calculating distance and time  Task 6- Activity 6.4 Robinvale or Koroit? |

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated In this task you will need to find your own ‘walking speed’ and use this information to calculate the time it will take you to reach various destinations. At the end of this task, you will be able to convert different types of measurement to calculate distances using formulas and different measurement tools. In this task you will need to calculate your walking speed and then use this information to predict the time it will take to reach various destinations.

## Task 6- Walking speed Activity 6.1 Collecting data



A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** When walking to your next fitness session, use a piece of technology to find out the distance it is to your fitness session and also how long it takes. For example, you could use Garmin Connect, Stravia, Google Maps, timer. Enter your information in the spaces provided below.

**Destination**

|  |
| --- |
|  |

**Distance (km)**

|  |
| --- |
|  |

**Time takes (minutes)**

|  |
| --- |
|  |

A purple icon with check marks

Description automatically generated **Part 2:** Using the measurements you have just collected in part 1, use the appropriate formula to convert these measurements in the questions below. Make sure you show your working out.

**Worked example**

|  |
| --- |
| 1 meter = 100 centimeters  Formula: Centimeters (cm) = Meters (m) x 100  Convert 8 meters to centimeters  8 x 100 = 800 cm |

**Kilometers to Centimeters**

1 kilometer = 1000m

Formula: Meters (m) = Kilometer (km) x 1000

1. Convert 6 kilometers to meters. Include your working out.

|  |
| --- |
|  |

1. Convert 7.5 kilometers to meters. Include your working out.

|  |
| --- |
|  |

**Minutes to Seconds**

1 minute = 60 seconds

Formula: Seconds (s) = Minute (min) x 60

1. Convert 5.25 minutes to seconds. Include your working out.

|  |
| --- |
|  |

## Task 6- Walking speed Activity 6.2 Calculating speed

**Fun Fact:** The fastest marathon ever run was by [Eliud Kipchoge](https://olympics.com/en/news/how-fast-was-eliud-kipchoge-world-record) at an average speed of 2 minutes 52 seconds/per km over 42 kms!!

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Using the data collected in Task 6- Walking speed Activity 6.1 Collecting data, work out how long in minutes it will take you to walk 1km. You will need to explain how you have worked out your walking speed. Answer the question below.

**Handy Tip:** speed = distance/time

**Worked example**

|  |
| --- |
| **Mr. Gleeson’s run at the Gold Coast**  Calculating Speed Minutes/per KM  **Time:** 24.15mins  **Distance:** 5.15km  **Speed =** distance/time  **Speed =** 5.15/24.15  **Speed =** 0.21 km per minute  Convert to km per hour:  **Speed** = 0.21 x 60 = 12.6 km/hr  **Running speed** = 12.6 km/hr |

1. Distance to gym (metres).

|  |
| --- |
|  |

1. Time to gym (minutes).

|  |
| --- |
|  |

1. Walking speed working out (Distance /Time x 60).

|  |
| --- |
| A purple icon with check marks  Description automatically generatedUse the above equation to show your workings out.    Walking Speed = \_\_\_\_\_\_\_\_\_ km/hr |

1. Explanation.

|  |
| --- |
| A purple icon with check marks  Description automatically generated I was able to calculate my walking speed by… |

## Task 6- Walking speed Activity 6.3 Calculating distance and time

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Now that you have your walking speed in km/hr. Calculate the scenarios listed below.

**Handy Tip:** Use [Google Maps](https://www.google.com.au/maps) to find the distance to your friend's house (Time = distance/speed).

Make sure the units for the speed and the distance are the same.

**Worked example**

|  |
| --- |
| Samira runs 4 km at a speed of 10 km/hour.  How long does this take her?  Distance: 4km  Speed: 10 km/h  Time = distance/speed  Time= 4/10  Time= 0.4 hours  Convert to minutes : 0.4 x 60 = 24 minutes |

1. Walk from home to a friend's house in the same town.

|  |
| --- |
| A purple icon with check marks  Description automatically generated **Distance:**  \_\_\_\_\_\_\_ kms  **Working out:**  **Speed:**  A purple icon with check marks  Description automatically generated Add km/hr here.  Equation  Time = distance/speed.  **Time =**  A purple icon with check marks  Description automatically generated Add your response here.  **Convert to minutes:**  A purple icon with check marks  Description automatically generated Show your workings here.  A purple icon with check marks  Description automatically generated**The time it would take to walk:** \_\_\_ mins \_\_\_ seconds |

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generated2. Walk from home to Geelong waterfront.

|  |
| --- |
| A purple icon with check marks  Description automatically generated **Distance:**  \_\_\_\_\_\_\_ kms  **Working out:**  **Speed:**  A purple icon with check marks  Description automatically generated Add km/hr here.  Equation  Time = distance/speed.  **Time =**  A purple icon with check marks  Description automatically generatedAdd your response here.  **Convert to minutes:**  A purple icon with check marks  Description automatically generated Show your workings here.  A purple icon with check marks  Description automatically generated**The time it would take to walk:** \_\_\_ mins \_\_\_ seconds |

## Task 6- Walking speed Activity 6.4 Robinvale or Koroit?

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Description automatically generated **Part 1:** Using [Google Maps](https://www.google.com.au/maps), find the distance from Surf Coast Secondary College to each of these places. Have a guess or ‘estimate’ how long it would take you to walk to these towns before you do your working out.

|  |
| --- |
| **Robinvale:** \_\_\_ km to Surf Coast Secondary College.  I think it would take \_\_\_ hours to walk to Robinvale from SCSC.  **Koroit:** \_\_\_km to Surf Coast Secondary College  I think it would take \_\_\_ hours to walk to Koroit from SCSC. |

A group of people in a room

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Description automatically generated **Part 2:** Using your walking speed, calculate how many hours it will take to walk to these towns. Then convert the hours into days.

|  |
| --- |
| **Robinvale:** \_\_\_ hours to walk ( \_\_\_ days)  **Working out:**  **Koroit:** \_\_\_ hours to walk ( \_\_\_ days)  **Working out:** |

A group of people in a room

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Description automatically generated **Part 3:** Complete the two following challenge questions.

**Challenge Question 1:** If Mr. Monk walked to Robinvale for his 1994 u/17 Premiership reunion and left Surf Coast Secondary on Wednesday 1st March at 12pm. What day and time would he arrive at Robinvale.

|  |
| --- |
| **Working out:** |

**Challenge Question 2:** Mr. Gleeson is going to walk to his U/16 Premiership reunion (where they came back from 4 goals behind at 3 Quarter time to win). The reunion starts on Wednesday 1st March at 3pm, what day and time would he need to leave Surf Coast Secondary College to get there at 3pm.

|  |
| --- |
| **Working Out:** |

## Task 6 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 6.1** | Collection of data from Tuesday's Fitness activity both the distance and time. | Choose an item. |
| **Activity 6.1** | Converting two different types of measurement and showing the formulas and working out to their answers | Choose an item. |
| **Activity 6.2** | Calculating walking speed in mins/per km and explanation of their working out. | Choose an item. |
| **Activity 6.3** | Calculating the distance and time to two different places and showing working out. | Choose an item. |
| **Activity 6.4** | Converting hours into days and completing the Challenge Questions with working out. | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 1 Estimate and measure familiar objects and distances by using measurement tools.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show evidence of being able to estimate and measure distances using a measuring tool. | **Consolidating:** You have shown some evidence of being able to estimate and measure distances using a measuring tool. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of how to estimate and measure distances using a measuring tool. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have been able to estimate and measure distances using a number of measurement tools. You have shown detailed working out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 3 Convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms, millilitres, litres, and degrees Celsius.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show evidence of converting using one-step calculations. | **Consolidating:** You have shown some evidence of converting using one-step calculations between common metrics of measurements. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of converting using one-step calculations between a range of common metrics of measurements. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of converting using one-step calculations of a range of metrics of measurement. You have shown detailed working out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 2 Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and accurately demonstrate simple algebra to solve everyday problems. | **Consolidating:** You have shown some evidence of algebra to find solutions to everyday problems. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of algebra to find solutions to problems. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding algebra to find solutions to a range of problems. You have shown detailed working out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 3 Use and apply rates in familiar situations such as $/m, km/hr.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show that you can accurately use and apply rates in familiar situations. | **Consolidating:** You have shown a basic understanding of using and applying rates in familiar situations. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of using and applying rates in a range of situations. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of using and applying rates in a range of situations. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 4 Apply simple formulae to find solutions to everyday problems such as area, amounts or costs.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show evidence of using a formula to find a solution. | **Consolidating:** You have shown a basic understanding of a basic formula to solve a problem. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of using a basic formula to solve a problem. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of how to use a number of different forumals to find solutions. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

# **Numeracy Task 7 Days, Dates & Time**

Numeracy Context: Recreational (f)

Area of Study (AoS): 3 Quantity and measure

|  |
| --- |
| Key knowledge and key skills |
| **AoS 3 KS 4** Read and interpret units of analogue and digital time and temperature.  **AoS 3 KS 5** Perform simple calculations using units of time, including calendar months, weeks, days, hours, minutes, and seconds |

|  |
| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Recreational (f)  Task 7 Activity 7.1 Create a detailed calendar for a month.  Task 7 Activity 7.2 Logbook accountability  Task 7 Activity 7.3 Logbook Problem Solving & Calculations  Task 7 Activity 7.4 Teacher Observation/Interview |

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated In this task you will interpret and perform calculations using units of time.

At the end of this task, you will interpret analogue and digital time. Record daily temperature and build a monthly calendar. In this task you will need to build a month-long training logbook.



## Task 7- Days, dates and times Activity 7.1 Creating a calendar

A purple icon with check marks

Description automatically generated **Part 1:** Choose your month.This will become a logbook of events, times, dates, training, weather and appointments over the course of 1 calendar month.

|  |
| --- |
| The month I will build my logbook over is… |

A group of people in a room

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Description automatically generatedA purple icon with check marks

Description automatically generated **Part 2: Pre-data and information-** Using your computers calendar application, include a screenshot of it before you start your logbook.

|  |
| --- |
| A purple icon with check marks  Description automatically generatedIf you require or prefer a hardcopy, paper version please see your teacher. |

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 3:** Using the ‘add event’ function, put in each weekly Fitness/Feed me Session. Include, day and time.

**Worked example**

A screenshot of a calendar

Description automatically generated

|  |
| --- |
| A purple icon with check marks  Description automatically generated Add a screenshot of your ‘events’ here. |

A group of people in a room

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Description automatically generated **Part 4: Other events-** Now you know how to put in events, look at your month and map it out. You need to add as many as possible. You will be sharing this information with your teacher in the next activity. Monthly event schedule could include events such as:

SWL- Structured Workplace Learning

VET sessions

Part-time work

Sport training sessions

Social events

Excursions, incursions and school events

Birthdays

Project work activities

## Task 7- Days, dates and times Activity 7.2 Calendar Observation check-in

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Description automatically generated **Part 1: Calendar observation check-in-** This is an interview with your teacher at the end the month to check over your calendar and logbook.

As a part of this task, you will need to book in a time with a teacher in the final week of your logbook to observe and check this task off as complete. Complete the table below to confirm your check-in has been booked in advance.

|  |
| --- |
| **Calendar Observation Event** |
| **Book your Teacher Observation Event in now and share this with the teacher!**  **Teacher booked-**  **Day booked-**  **Time booked-**  **Confirmed-** |

A group of people in a room

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Description automatically generatedA purple icon with check marks

Description automatically generated **Part 2: Logbook accountability-** After each Tuesday training session please fill in the following in the ‘notes’ section of the event, example below. These will be checked off in your teacher observation check-in.

**Event work example**

A screenshot of a phone

Description automatically generated

## Task 7- Days, dates and times Activity 7.3 logbook problem solving and calculations

A group of people in a room

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Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Using your calendar logbook of events, work through the problems below that will be discussed in your teacher observation check-in.

|  |
| --- |
| **Logbook problem solving and calculation questions** |
| 1. How many days were spent at your Tuesday training events? 2. How many hours were spent at your Tuesday training events? 3. How many minutes were spent at your Tuesday training events? 4. How many days between your first Tuesday event of the month until your teacher observation interview? 5. Which event took up the most time over your month? How many hours? 6. There are 168 hours in a week, break down an estimate of how your 168 hours were spent below - Events, work, sleep etc. |

## Task 7- Days, dates and times Activity 7.4 Teacher observation check-in

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Participate in the teacher observation check-in. You will be asked some questions about the following to check for your understanding:

Analogue time

Digital time

Weather temperature

|  |  |
| --- | --- |
| **Teacher name:** |  |
| **Date:** |  |
| **Teacher sign-off:** |  |
| **Comment:** |  |

## Task 7 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 7.1** | Month was selected for the calendar logbook. | Choose an item. |
| **Activity 7.1** | Events for the month have been created. | Choose an item. |
| **Activity 7.2** | Logbook accountability | Choose an item. |
| **Activity 7.3** | Logbook problem-solving and calculations. | Choose an item. |
| **Activity 7.4** | Teacher observation check-in | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 4 Read and interpret units of analogue and digital time and temperature.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted some of the activities. To bump it up, you need to complete all parts of the activity and show evidence of being able to read and interpret units of analogue, digital time and temperature. | **Consolidating:** You have shown a basic understanding of being able to read and interpret some units of analogue, digital time and temperature. To bump it up, check over your answers to see if they are correct. | **Achieving:** You have shown an understanding of being able to read and interpret units of analogue, digital time and temperature.To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown detailed evidence of being able to read and interpret units of analogue, digital time and temperature. All of your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 5 Perform simple calculations using units of time, including calendar months, weeks, days, hours, minutes, and seconds.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted some of the activities. To bump it up, you need to complete all parts of the activity and show evidence of performing simple calculations using units of time, including calendar months, weeks, days, hours, minutes and seconds. | **Consolidating:** You have shown a basic understanding of performing simple calculations using units of time, including calendar months, weeks, days, hours, minutes and seconds. To bump it up, check over your answers to see if they are correct. | **Achieving:** You have shown an understanding of performing simple calculations using units of time, including calendar months, weeks, days, hours, minutes and seconds. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown detailed evidence of performing simple calculations using units of time, including calendar months, weeks, days, hours, minutes and seconds. All of your answers are correct. Great work! |
| Teacher Comment: | | | | |

# **Numeracy Task 8 Weights and cardio**

Numeracy Context: Recreational (f)

Area of Study (AoS): 3 Quantity and measure

|  |
| --- |
| Key knowledge and key skills |
| AoS 3 KS 1 Estimate and measure familiar objects and distances by using measurement tool.  AoS 3 KS 3 Convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms. |

|  |
| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Recreational (f)  Task 8- Activity 8.1 Estimates  Task 8- Activity 8.2 Converting Measurements |

A group of people in a room

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Description automatically generatedIn this task you will estimate and measure familiar objects and convert units of measurement. At the end of this task, you will be able to estimate the weight of familiar objects. Students will be able to convert units of measurement. You will need to estimate the weight of various objects, convert units of measurement and record photo evidence of your time at the gym.

A person lifting weights in a gym

Description automatically generated

## Task 8- Weights and cardio Activity 8.1 Estimates

A group of people in a room

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Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1: Estimates** - Using Grams, Kilograms or Tonnes estimate the weight of the objects below.

|  |
| --- |
| Your computer-  The chair you are sitting on-  The table you are working at-  The bag you carry to school-  A fridge-  Teacher’s car- |

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 2: Dumbbell-** Estimate an equivalent object to the weights listed below.

|  |
| --- |
| 2 kg-  5 kg-  10 kg-  25 kg- |

## Task 8- Weights and cardio Activity 8.2 Converting measurements

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 1:** Using the measurements below, convert the measurement. Use the appropriate formula to convert these measurements. Make sure you show your working out in each table.

**Worked example**

|  |
| --- |
| 1 kilogram = 1000 grams  Formula: grams =  kilograms (kg) x 1000  Convert 8 kilograms to grams  Working out: 8 x 1000 = 8000 g |

|  |
| --- |
| **Convert the following into grams. Show your working out.** |
| **2 kg-**    **5 kg-**    **10 kg-**    **25 kg-** |

**Worked example**

|  |
| --- |
| 1000 grams = 1 kg  Formula: kilograms = grams(g)  ÷ 1000  Convert 6500 grams to kilograms  Working out: 6500 ÷ 1000 = 6.5 kg |

|  |
| --- |
| **Convert the following into kilograms. Show your working out.** |
| **3000 g-**    **1200 g-**    **9500 g-**    **17250 g-** |

**Worked example**

|  |
| --- |
| 1 meter = 100 centimeters  Formula: Centimeters (cm) = Meters (m) x 100  Convert 3 meters to centimeters  Working out: 3 x 100 = 300 cm  1 meter = 1000 millimeters  1 centimeter = 10 millimeters  Convert 3 m to millimeters  Working out: 3 x 1000 = 3000 mm  Convert 50 cm to millimeters  Working out: 50 x 10 = 500 mm |

|  |
| --- |
| **Convert the following Gym, workplace objects - m to cm to mm. Show your working out.** |
| **Skipping rope:** 2 m: \_\_\_\_cm : \_\_\_\_\_mm  **Working out: 2 x \_\_\_\_ = 200cm, 2 x \_\_\_\_ = 2000mm**  **Object 1 (\_\_\_\_\_\_\_\_ ): \_\_\_\_m : \_\_\_\_\_ cm : \_\_\_\_\_ mm**  **Working out:**  **Object 2 ( \_\_\_\_\_\_\_\_): \_\_\_\_m : \_\_\_\_\_ cm : \_\_\_\_\_ mm**  **Working out:**  **Object 3 (\_\_\_\_\_\_\_\_): \_\_\_\_m : \_\_\_\_\_ cm : \_\_\_\_\_ mm**   **Working out:** |

|  |
| --- |
| **Convert the following metres into kilometres. Show your working out.** |
| **500 m: \_\_\_\_\_\_km**  **5000 m: \_\_\_\_\_\_ km**  **2 km: \_\_\_\_\_\_ m**    **0.75k m: \_\_\_\_\_ m** |

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 2: Photo Evidence -** Include photos of the following activities listed below as evidence of your engagement.

|  |
| --- |
| **Dumbbells - 2kg         5kg            10kg**  A purple icon with check marks  Description automatically generated Add photo evidence here.    **Bike or Rowing Machine** - 500m effort, photo to include time and distance covered.  A purple icon with check marks  Description automatically generated Add photo evidence here. |

## Task 8 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 8.1** | Estimates recorded. | Choose an item. |
| **Activity 8.2** | Converting two different types of measurement and showing the formulas and working out to their answers g & kg. | Choose an item. |
| **Activity 8.2** | Converting two different types of measurement and showing the formulas and working out to their answers - mm, cm & m. | Choose an item. |
| **Activity 8.2** | Converting two different types of measurement and showing the formulas and working out to their answers m & km. | Choose an item. |
| **Activity 8.2** | Photo evidence of bike/rower/weights & measurements. | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 1 Estimate and measure familiar objects and distances by using measurement tools.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show evidence of being able to estimate and measure distances using a measuring tool. | **Consolidating:** You have shown some evidence of being able to estimate and measure distances using a measuring tool. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of how to estimate and measure distances using a measuring tool. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have been able to estimate and measure distances using a number of measurement tools. You have shown detailed working out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 3 KS 3 Convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms, millilitres, litres, and degrees Celsius.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show evidence of converting using one-step calculations. | **Consolidating:** You have shown some evidence of converting using one-step calculations between common metrics of measurements. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of converting using one-step calculations between a range of common metrics of measurements. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of converting using one-step calculations of a range of metrics of measurement. You have shown detailed working out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

# **Numeracy Task 9 Camp costing**

Numeracy Context: Health (d)

Area of Study (AoS): 1 Number & 4 Relationships

|  |
| --- |
| Key knowledge and key skills |
| **AoS 1 KS 1** Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  **AoS 1 KS 2** Use the order of operations to solve a range of practical calculations with whole numbers and common decimals and fractions.  **AoS 4 KS 1** Recognise and represent relationships with simple mathematical expressions, or simple pictorial or graphical representations.  **AoS 4 KS 2** Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems.  **AoS 4 KS 4** Apply simple formulae to find solutions to everyday problems such as area, amounts or costings. |

|  |
| --- |
| Task Checklist |
| Students will complete the following for Numeracy Context: Health (d)  Task 9- Activity 9.1 Inquiry question  Task 9- Activity 9.2 Campsite availability  Task 9- Activity 9.3 Availability and costings  Task 9- Activity 9.4 Decision time and costing  Task 9- Activity 9.5 Summary |

## Task 9- Camp costing Activity 9.1 Inquiry Question

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Context –** Getting ready for a college camp or camping trip.

**Task 9 Inquiry Question-** This task allows students to work through the numeracy ‘Problem Solving Cycle’.

How much does it cost to run a camp?

A diagram of a mathematical process

Description automatically generated

**Identify the mathematics:** Recognise, select and interpret the mathematical information embedded in a real-world context and decide what mathematics to use.

A group of people in a room

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Description automatically generated **Part 1:** What does the inquiry question mean? Spend some time discussing this. Take notes in the space provided below.

|  |
| --- |
|  |

A purple icon with check marks

Description automatically generated **Part 2:** From your discussion outline what you think the key words in the inquiry question mean in the table below.

|  |  |
| --- | --- |
| **Key Words** | **Possible meaning** |
| **Cost** |  |
| **Camp** |  |

A purple icon with check marks

Description automatically generated **Part 3:** In thinking about this inquiry question, what other questions come to mind? Do you have any more?

* What campsites are available?
* Do they offer space for a school camp?
* How long are we staying?
* What is the cost per night?
* Is there a group booking discount?

|  |
| --- |
| A purple icon with check marks  Description automatically generated Add any other questions here. |

A purple icon with check marks

Description automatically generated **Part 4:** If you are going to answer the inquiry question you will need some math tools. Use the table below to think about what tools you want to use and explain why you have chosen them.

|  |
| --- |
| **What tools are you going to use? Explain why you have chosen the tool.** |
| A purple icon with check marks  Description automatically generated You could think of the following:  Digital-Internet, spreadsheet, calculator, google maps.  Paper, post-it notes, pencils, pens, maps. |

A purple icon with check marks

Description automatically generated **Part 5:** Create a criteria for a campsite that you are looking for. Use the template below as a guide.

|  |
| --- |
| I am going to look for a suitable camp for…  The camp location needs to have…  The number of nights…  When are you going? |

## Task 9- Camp costing Activity 9.2 Campsite availability

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Description automatically generated **Part 1:** Now that you have a list of requirements for your campsite, it’s time to start researching possible options. Use the table below to record details about four possible campsite options.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Campsite** | **How far away is it?** | **Availability** | **Amenities** | **Meets criteria? Any issues?** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

## Task 9- Camp costing Activity 9.3 Availability and costings

A diagram of a mathematical process

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Description automatically generated **Part 1: From Task 9- Camp costing Activity 9.2 Campsite availability-** You are going to select two campsites of your choice. You are going to compare different aspects of the two campsites in the tables below. This will support you to decide which campsite best suits your needs.

1. **Select two campsites.**

|  |  |
| --- | --- |
| **Campsite 1** | **Campsite 2** |
|  |  |

1. **Compare Distances of the two campsites:**

* Use the website: <https://www.petrolcostcalculator.com.au/> to calculate the cost of petrol to get to and from the campsite.
* Hint: you will need to google the cost of fuel currently to be accurate, then update this price in the ‘Petrol Price / L $’ box.
* You need to consider the pluses or minuses of each journey (E.g. one might be further away but might have a more direct route.)

|  |  |  |  |
| --- | --- | --- | --- |
| **Camp 1:**  **Distance:**  **Cost according to website:** | | **Camp 2:**  **Distance:**  **Cost according to website:** | |
| **Plus (+)** | **Minus (-)** | **Plus (+)** | **Minus (-)** |
|  |  |  |  |
| Reflect on your answers. Which is the better camp? | | | |

1. **Compare amenities.**

* Review the amenities available at both campsites you’ve selected.

|  |  |  |  |
| --- | --- | --- | --- |
| **Camp 1:**  **Distance:**  **Cost according to website:** | | **Camp 2:**  **Distance:**  **Cost according to website:** | |
| **Plus (+)** | **Minus (-)** | **Plus (+)** | **Minus (-)** |
|  |  |  |  |
| Reflect on your answers. Which is the better camp? | | | |

1. **Compare costings.**

* You will need to know how many people are going to camp and how long the camp is. At this stage it’s ok to estimate. Make sure you use the same values for each campsite.
* Use the different websites, or contact the camp directly, to get a quote for the cost of the stay.

|  |  |  |  |
| --- | --- | --- | --- |
| **Camp 1:**  **Distance:**  **Cost according to website:** | | **Camp 2:**  **Distance:**  **Cost according to website:** | |
| **Plus (+)** | **Minus (-)** | **Plus (+)** | **Minus (-)** |
|  |  |  |  |
| Reflect on your answers. Which is the better camp? | | | |

1. **Compare availability.**

* Use this space to make notes about the availability of the two campsites.

You could consider things like:

* When you would have to book by.
* If you need to pay a deposit.
* What would happen if the camp trip ended up with fewer people than you have planned for?

|  |  |  |  |
| --- | --- | --- | --- |
| **Camp 1:**  **Distance:**  **Cost according to website:** | | **Camp 2:**  **Distance:**  **Cost according to website:** | |
| **Plus (+)** | **Minus (-)** | **Plus (+)** | **Minus (-)** |
|  |  |  |  |
| Reflect on your answers. Which is the better camp? | | | |

1. **Anything else you would like to compare?**

Use this space to make notes about other aspects that you haven’t considered. For example:

* You prefer a campsite near the beach.
* You wanted to camp in the bush.
* One campsite just looks better…
* You want to have mobile phone reception.

|  |  |  |  |
| --- | --- | --- | --- |
| **Camp 1:**  **Distance:**  **Cost according to website:** | | **Camp 2:**  **Distance:**  **Cost according to website:** | |
| **Plus (+)** | **Minus (-)** | **Plus (+)** | **Minus (-)** |
|  |  |  |  |
| Reflect on your answers. Which is the better camp? | | | |

## Task 9- Camp costing Activity 9.4 Decision time and costings

A diagram of a math process

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**Evaluate and reflect:** Check and reflect on the mathematical problem-solving processes and outcomes in relation to the real-world context.

A group of people in a room

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Description automatically generated **Part 1:** You should now be in a good place to decide about your preferred campsite. Use the table below to summarise your findings.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Campsite** | **Distance** | **Amenities** | **Costings** | **Availability** | **Other** |
| **Campsite 1** |  |  |  |  |  |
| **Campsite 2** |  |  |  |  |  |

A purple icon with check marks

Description automatically generated **Part 2:** Which campsite do you recommend and why?

|  |
| --- |
|  |

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Description automatically generated **Part 3: Create a costings sheet-** For your chosen campsite, you are going to create a costing sheet for this trip. Ensuring that you include all the following details:

Camp name

Camp address

Date arriving

Date leaving

Number of nights

You can create your own costings sheet or use/modify the template provided below.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Unit cost** | **Quantity** | **Total Cost** |
| **Travel** |  |  |  |
| **Accommodation** |  |  |  |
| **Amenities** |  |  |  |
| **Other** |  |  |  |
| **Total** | | |  |
| **GST** | | |  |
| **Grand Total** | | |  |
| **Payment due** | | |  |

## Task 9- Camp costing Activity 9.5 Summary

A diagram of a mathematical process

Description automatically generated

**Communicate and report:** Use a combination of informal and formal mathematical representations to document and report outcomes and results.

A group of people in a room

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Description automatically generated **Part 1:** Now it is time to answer the original inquiry question. How much does it cost to run a camp?

Create a presentation and include the following information:

All the costs involved in running a camp.

Which campsites are available.

A breakdown of the different costs associated with two possible campsite options.

The total cost for your chose campsite visits.

|  |
| --- |
| A purple icon with check marks  Description automatically generatedAdd or link to your presentation here. |

A group of people in a room

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Description automatically generatedA purple icon with check marks

Description automatically generated **Part 2:** Present your findings to another group and a teacher. Consider which costings seem reasonable. Get a peer and a teacher to fill in the feedback tables below.

|  |  |
| --- | --- |
| **Peer feedback** | |
| **Name of peer** |  |
| **Date** |  |
| **Feedback on destinations** |  |

|  |  |
| --- | --- |
| **Teacher feedback** | |
| **Name of peer** |  |
| **Date** |  |
| **Presentation and feedback on destinations** |  |
| **Sign off** |  |

## Task 9 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 9.1** | What does the inquiry question mean? | Choose an item. |
| **Activity 9.2** | What campsites are available? | Choose an item. |
| **Activity 9.3** | Availability and costings. | Choose an item. |
| **Activity 9.4** | Decision making and costing. | Choose an item. |
| **Activity 9.5** | Summary | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 1 Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to accurately demonstrate an understanding of reading numbers, place value and decimal place. Go back and ensure that you have shown your working out and that your answers are correct. | **Consolidating:** You have demonstrated a basic understanding of reading numbers, place values and decimal places. You have shown some working out and most of your answers are correct. To bump it up, you need to add further details of your working and out. Then check over you answers to see if they are correct. | **Achieving:** You have demonstrated an understanding of reading numbers, place values and decimal place values. You have some of your working out and all your answers are correct. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated a high level of understanding of reading numbers, place values and decimal place values. You have shown your workings and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 2 Use the order of operations to solve a range of practical calculations with whole numbers and common decimals and fraction.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted some aspects of this task. To bump it up, you need to attempt all sections of this task and accurately use order of operations to solve the calculations. | **Consolidating:** You have demonstrated a basic understanding of using order of operations to solve a range of practical calculations. You have shown some working out and most of your answers are correct. To bump it up, you need to add further details of your working and out. Then check over you answers to see if they are correct. | **Achieving:** You have demonstrated an understanding of using order of operations to solve a range of practical calculations. You have some of your working out and all your answers are correct. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated a high level of using order of operations to solve a range of calculations. You have shown your workings and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 1 Recognise and represent relationships with simple mathematical expressions, or simple pictorial or graphical representations.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted some aspects of this task. To bump it up, you need to attempt all sections of this task and be able to recognise and represent relationships with simple mathematical expressions. | **Consolidating:** You have demonstrated a basic understanding of how to recognise and represent relationships with simple mathematical expressions. You have shown some working out and most of your answers are correct. To bump it up, you need to add further details of your working and out. Then check over you answers to see if they are correct. | **Achieving:** You have demonstrated an understanding of to recognise and represent relationships with mathematical expressions, pictorials and/or graphic representations. You have some of your working out and all your answers are correct. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated a high level of understanding of how to recognise and represent relationships with mathematical expressions, pictorials and/or graphic representations. You have shown your workings and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 2 Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show that you can accurately demonstrate simple algebra to solve everyday problems. | **Consolidating:** You have shown a basic understanding of algebra to find solutions to everyday problems. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of algebra to find solutions to problems. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding algebra to find solutions to a range of problems. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 4 Apply simple formulae to find solutions to everyday problems such as area, amounts or costs.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show evidence of using a formula to find a solution. | **Consolidating:** You have shown a basic understanding of a basic formula to solve a problem. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of using a basic formula to solve a problem. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding of how to use a number of different formulas to find solutions. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

# **Numeracy Task 10 Planning a walk in the bush**

Numeracy Context: Health (d)

Area of Study (AoS): 1 Number and 4 Relationships

|  |
| --- |
| Key knowledge and key skills |
| **AoS1 KS 1** Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  **AoS 1 KS 2** Use the order of operations to solve a range of practical calculations with whole numbers and common decimals and fractions.  **AoS 4 KS 1** Recognise and represent relationships with simple mathematical expressions, or simple pictorial or graphical representations.  **AoS 4 KS 2** Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems. |

|  |
| --- |
| Task Checklist |
| Task 10- Activity 10.1 Collecting and using data  Task 10- Activity 10.2 Order of operations  Task 10- Activity 10.3 Plan a bushwalk |

A group of people in a room

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Description automatically generatedIn this task, you will be able to plan a bush walk and estimate the time the walk will take. You will be able to solve problems involving more than one operation. At the end of this task, you will be able to convert length and time measurements when required and use appropriate formulae to calculate distances and times.

## Task 10- Bush walk Activity 10.1 Collecting and using data

A group of people in a room

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Description automatically generated **Part 1:** You need to plan a bush walk that involves going uphill. You will use previous data collected from Numeracy Task-6 Walking speed and use this information to get an accurate estimate of the time it will take you to do a bush walk. Collect the walking speed of 5 other peers.

|  |  |
| --- | --- |
| **Name** | **Walking speed in km per hour** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

A purple icon with check marks

Description automatically generated **Part 2: Ordering data-** Arrange these speeds from fastest to slowest in the table below.

|  |  |
| --- | --- |
| **Name** | **Walking speed in km per hour** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

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Description automatically generated **Part 3: Applying formula-** Using the speeds of your classmates, work out how long it would take each of them to walk 12km.

**Worked Example**

|  |
| --- |
| Samira walks at a speed of 4 km/h. Find out how long it will take her to walk 10 km.  Formula: time = distance/ speed  Working out: 10/4 = 2.5 hours  It would take Samira 2.5 hours to walk 10km |

|  |  |  |
| --- | --- | --- |
| **Name** | **Speed** | **Time calculation**  **Time= Distance/speed** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Task 10- Bush walk Activity 10.2 Order of operations

A group of people in a room

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Description automatically generated **Part 1:** You will use the examples to help you to use order of operation to solve a range of calculations.

Order of operation is often called BODMAS. BOMAS is used to solve problems that have multiple operations. Problems that have multiple operations must be completed in the correct sequence.

**B- Brackets**: Perform operations inside brackets first.

**O - Order of powers or roots**: Next evaluate any expressions with exponents or powers. This involves operations like squaring, cubing or finding the root.

**D – Division and M – Multiplication**: After handling brackets and exponents, perform division and multiplication from left to right. These operations have the same priority, so they are carried out in the order they appear in the expression.

**A – Addition and S – Subtraction**: Finally, carry out the addition and subtraction from left to right. Like division and multiplication, these operations have the same priority and are performed in the order they appear in the expression.

**Worked examples**

|  |
| --- |
| **1**  24 ÷ (2 × 3)  Step 1 is to perform the operation that is in the bracket first: 2 × 3 = 6  Then do the division: 24 ÷ 6 = 4  **2**  32 x 6 + 8  Step 1 is to evaluate the expression with the exponent or power first: 32 = 9  Step 2 is to carry out the multiplication: 9 x 6 =54  Then do the addition: 54 + 8 = 62  **3**  (6 + 4) × 8  Step 1 is to perform the operation in the bracket first: 6 + 4 = 10  Then do the multiplication: (10) × 8 = 80  **4**  30 – 42  Step 1 is to evaluate the expression with the exponent or the power first: 42 = 16  Then do the subtraction: 30 – 16 = 14 |

A green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 2:** Use the order of operation (BODMAS) to solve the problems listed below.

|  |
| --- |
| **35 + 6 × 2**  **65 + 52**  **80 – (2 × 4)2**  **100 ÷ 5 – 8**  **(9 × 8) ÷ 3 – 5**  **55 + 36 ÷ 4**    **12 × 5 ÷ 22** |

## Task 10- Bush walk Activity 10.3 Plan a bush walk

A group of people in a room

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Description automatically generated **Part 1:** Plan a bush walk that is in a location no more than 50 km from where you live. The bush walk should be no more than 15km. Try to find an area that involves going uphill.

On a map label the possible routes for your walk. Think about what tools you are going to use to support you to have a successful bushwalk. For example, google maps, calculator, compass ect.

|  |
| --- |
| A purple icon with check marks  Description automatically generated Add map here and include labelling of possible routes.  A purple icon with check marks  Description automatically generated List what mathematical tools you will/have used here. |

A group of people in a room

Description automatically generatedA green outline of a person with a computer

Description automatically generatedA purple icon with check marks

Description automatically generated **Part 2: Naismith rule**- Routes that involve walking uphill, ascending, can take longer than when walking on a flat route. Naismith’s rule is for every 100 meters ascended; 10 minutes needs to be added to the time. Research the Naismith rule and write a summary in the space below.

|  |
| --- |
|  |

**Worked Example**

|  |
| --- |
| Samira takes 2.5 hours to walk 10 km as her walking speed in 4km/h. If the route included Samira to walk 500 meters uphill, calculate the overall time it would take her.  Overall time = 2.5 hours  + (500/10) ÷ 60  **Use order of operation (BODMAS)**  **1- is perform the operation in the brackets**  500/10 = 50 minutes  **Hint:** We need to convert minutes into hours so the units are the same  **2- the do the division**  50 ÷ 60 = 0.83 hours  **3-Do the adding**  **Overall time** = 2.5 + 0.83 = 3.33 hours |

A group of people in a room

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Description automatically generatedA purple icon with check marks

Description automatically generated **Part 3: How long?** Using the answers you collected in Task 10- Bushwalk Activity 10.1 Collecting and using data how long would it take your classmates to walk 12km that includes 660 meters walking uphill?

|  |  |  |
| --- | --- | --- |
| **Name** | **Time to walk 12km** | **Overall time of bushwalk** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

A group of people in a room

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Description automatically generatedA purple icon with check marks

Description automatically generated **Part 4: How long for you?** For your planned bush walk from Task 10 Activity 10.3 Plan a bush walk, calculate the time it would take you to do this using the average speed you calculated in Task 6- Walking speed.

If your route involves going uphill take this into account when working out the overall time.

|  |
| --- |
| A purple icon with check marks  Description automatically generated Add your working out here. |

## Task 10 - Feedback and Assessment

|  |  |  |
| --- | --- | --- |
| **Peer Feedback** | | |
| **Activity 10.1** | Collecting and using data | Choose an item. |
| **Activity 10.2** | Order of operations | Choose an item. |
| **Activity 10.3** | Plan a bushwalk | Choose an item. |
| **Peer Comment:**  **Name of Peer:** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 1 Demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to accurately demonstrate an understanding of reading numbers, place value and decimal place. Go back and ensure that you have shown your working out and that your answers are correct. | **Consolidating:** You have demonstrated a basic understanding of reading numbers, place values and decimal places. You have shown some working out and most of your answers are correct. To bump it up, you need to add further details of your working and out. Then check over you answers to see if they are correct. | **Achieving:** You have demonstrated an understanding of reading numbers, place values and decimal place values. You have some of your working out and all your answers are correct. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated a high level of understanding of reading numbers, place values and decimal place values. You have shown your workings and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 1 KS 2 Use the order of operations to solve a range of practical calculations with whole numbers and common decimals and fraction.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted some aspects of this task. To bump it up, you need to attempt all sections of this task and accurately use order of operations to solve the calculations. | **Consolidating:** You have demonstrated a basic understanding of using order of operations to solve a range of practical calculations. You have shown some working out and most of your answers are correct. To bump it up, you need to add further details of your working and out. Then check over you answers to see if they are correct. | **Achieving:** You have demonstrated an understanding of using order of operations to solve a range of practical calculations. You have some of your working out and all your answers are correct. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated a high level of using order of operations to solve a range of calculations. You have shown your workings and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AoS 4 KS 1 Recognise and represent relationships with simple mathematical expressions, or simple pictorial or graphical representations.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted some aspects of this task. To bump it up, you need to attempt all sections of this task and be able to recognise and represent relationships with simple mathematical expressions. | **Consolidating:** You have demonstrated a basic understanding of how to recognise and represent relationships with simple mathematical expressions. You have shown some working out and most of your answers are correct. To bump it up, you need to add further details of your working and out. Then check over you answers to see if they are correct. | **Achieving:** You have demonstrated an understanding of to recognise and represent relationships with mathematical expressions, pictorials and/or graphic representations. You have some of your working out and all your answers are correct. To bump it up, you need to add further details of your working out. | **Excelling:** You have demonstrated a high level of understanding of how to recognise and represent relationships with mathematical expressions, pictorials and/or graphic representations. You have shown your workings and all your answers are correct. Great work! |
| Teacher Comment: | | | | |

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| AoS 4 KS 2 Demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems.  Student Reflection - How well did you go with this step? (Please check the box below) | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| Student Comment (Optional): | | | | |
| **Teacher Feedback** | | | | |
| Not Submitted | Beginning | Consolidating | Achieving | Excelling |
| **Not Submitted:** No work has been submitted or attempted for this outcome. | **Beginning**: You have attempted to answer some of the questions. To bump it up, you need to complete all parts of the activity and show that you can accurately demonstrate simple algebra to solve everyday problems. | **Consolidating:** You have shown a basic understanding of algebra to find solutions to everyday problems. You have shown some working out. To bump it up, check over your answers to see if they are correct and include more details of your working out. | **Achieving:** You have shown an understanding of algebra to find solutions to problems. You have shown your workings. To bump it up, recheck your answers to make sure your answers are all correct. | **Excelling:** You have shown a high level of understanding algebra to find solutions to a range of problems. You have shown your workings out and all your answers are correct. Great work! |
| Teacher Comment: | | | | |