# What should I do when I am older?

Students will be using the salaries of different jobs predicted to be necessary in 2030 to calculate weekly, fortnightly and yearly income.

## Visible learning

### Learning intention

* To understand the concept of a salary.

### Success criteria

* I can calculate weekly, fortnightly, monthly and annual earnings.
* I can explain why converting directly between weekly and monthly earnings must be calculated as an annual amount first.

### Syllabus outcomes

A student:

* Solves financial problems involving simple interest, earning money and spending money **MA5-FIN-C-01**
* develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly **MAO-WM-01**

[Mathematics K–10 Syllabus](https://curriculum.nsw.edu.au/learning-areas/mathematics/mathematics-k-10-2022) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2022.

## Activity structure

### Launch

1. Brainstorm with students any jobs that they can think of that might have existed when their parents or grandparents were young, but don’t exist any longer.
2. Display the article ‘Australian jobs of yesteryear: The knocker upper, the dunny man and the town husband’ ([bit.ly/jobsofyesteryear](https://bit.ly/jobsofyesteryear)) and read through the 10 jobs listed that are now redundant in Australia.
3. Pose the question: ‘What do you think will be the jobs of the future?’ Allow some randomly selected students to share their answers with the class.
4. Show students the video ‘Top 10 New Future Jobs’ (3:11) ([bit.ly/top10newfuturejobs](https://bit.ly/top10newfuturejobs)) from 0:38 to 2:45, where futurist Christopher Barnatt provides a countdown of 10 potential new employment possibilities.
5. Conduct a class discussion on whether students believe that these could be future jobs.

### Explore

1. In pairs, allow time for students to Think-Pair-Share ([bit.ly/thinkpairsharestrategy](https://bit.ly/thinkpairsharestrategy)) the question ‘What jobs do you think are in high demand today?’. Prompting questions could include:
* Could you make a list?
* Where could we get this information from?
* Why do you believe these jobs are in high demand?
1. Display on the board or distribute to students, Appendix A ‘Jobs in demand today’ which contains a list of 15 top jobs required in Australia today. Ask students what they notice and what they wonder ([bit.ly/noticewonderstrategy](https://bit.ly/noticewonderstrategy)) about the data in the table. The following prompting questions may guide the students’ thinking:
* What is a salary?
* Why is there a range for each job?
* Why are some jobs paid more than others?
* Is there any industry that is more prominent on this list?
* How much money will you get to take home a week, fortnight, or month?

Given the changing nature of the job market and the need to keep content relevant, teachers may need to research trends at the time of the lesson and update this list. Using the search term ‘top 10 jobs in Australia 202\*’, should produce an updated list.

1. Define salary as a fixed amount an employer agrees to pay an employee for their work over a specific period, typically on a monthly or annual basis.
2. Highlight or underline the key terms in the definition. The key terms are ‘fixed’, ‘specific period’ and ‘annual’. After underlining these words, prompt a discussion with the students about each term. Prompting questions could include:
* What is meant by the term fixed?
* How will it influence my work week?
* How will it influence my pay?
* Is there a typical month?
* Do all months have the same number of weeks?
* If I get $100 a month, can I say that this is $25 a week? Why or why not?

This literacy activity should help students understand the difference between salary and wages and why you can’t convert between weeks and months.

1. Conduct a class discussion on which jobs typically pay a salary and which jobs typically pay a wage.
2. After the discussion, ask students to explain in their own words the difference between a wage and a salary.

### Summarise

1. Assign students into visibly random groups of 3 ([bit.ly/visiblegroups](https://bit.ly/visiblegroups)) and issue each student with Appendix B ‘Find the error!’. This contains different time conversions, some true and some false. Students will use their knowledge of time to identify the errors. Students will need to justify why the answers are incorrect and correct.
2. Conduct a class discussion to go through the answers of which statements were incorrect and the reasons why.
3. Students are to complete Appendix C ‘How much money is that?’ independently. The same jobs as discussed previously are presented with earnings in different time periods. Students will need to convert between time periods to complete the table.
4. Students are to research, either by students sharing in the class from their own experience or by looking it up online, the minimum hourly rate for a 15-year-old in any position. Students are to convert this amount to an annual salary based on 38 hours a week and compare this to the jobs listed in Appendix C.
5. Conduct a class discussion on the advantages and disadvantages of both salaries and wages.
6. Students are to make notes to their future forgetful self ([bit.ly/notesstrategy](https://bit.ly/notesstrategy)) on the difference between a salary and wage, giving examples and identifying the advantages and disadvantages of each.

### Apply

1. As an exit ticket ([bit.ly/exitticketstrategy](https://bit.ly/exitticketstrategy)) ask students to determine who gets paid the most?
* Amanda who receives $4000 a month.
* Bonnie who receives $1000 a week.
* Claudette who receives $49 000 annually.
* Dominique who receives $27 per hour for a 38-hour work week.
1. Students could create a job file for prospective careers. Information that could be researched includes:
* prospective salaries
* salary range
* take home pay
* weekly pay, monthly pay and hourly pay based on 38-hour week
* the skills or education needed
* areas where the job is required
* how in demand the job is currently
* special payments received, or allowances.

## Assessment and differentiation

### Suggested opportunities for differentiation

**Explore**

* The role description for the jobs in Appendix A might need to be explained to the students.
* The values in the average column in Appendix A could be deleted and students given time to find the average for each position.
* The teacher may need to reduce the number of jobs presented to the students.
* Students could research the top 15 jobs in other countries and see how it compares to Australia.
* Time conversions may need to be revisited before this lesson.

**Summarise**

* The conversion from months to weeks causes the most confusion. These conversions could be eliminated from Appendix C if required.
* Students could research 5 jobs on the internet and set up a table similar to Appendix C for a friend to complete.

**Apply**

* The exit ticket could be modified to meet the needs of your students.

### Suggested opportunities for assessment

**Summarise**

* Appendix C could be collected and used as formative assessment for this unit of work.

**Apply**

* The exit ticket could be collected and used as formative assessment for this unit of work.

## **Appendix A**

### Jobs in demand today

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Job | Bottom salary | Top salary | Average |
| 1 | Civil Engineer | $58 000 | $102 000 | $80 000 |
| 2 | Plumber | $60 000 | $89 000 | $74 500 |
| 3 | IT Security Specialist | $98 000 | $160 000 | $129 000 |
| 4 | Logistics Manager | $62 000 | $150 000 | $106 000 |
| 5 | Welder | $55 000 | $72 000 | $63 500 |
| 6 | Registered Nurse | $88 000 | $129 000 | $108 500 |
| 7 | Childcare worker | $64 000 | $89 000 | $76 500 |
| 8 | Project Manager | $78 000 | $170 000 | $124 000 |
| 9 | Dentist | $74 000 | $200 000 | $137 000 |
| 10 | Hospitality Manager | $53 000 | $69 000 | $61 000 |
| 11 | Construction Manager | $67 000 | $180 000 | $123 500 |
| 12 | Heavy Vehicle Mechanic | $100 000 | $160 000 | $130 000 |
| 13 | Chef | $59 000 | $84 000 | $71 500 |
| 14 | Human Resource Manager | $72 000 | $170 000 | $121 000 |
| 15 | Aged and disability Care worker | $60 000 | $96 000 | $78 000 |

Data sourced from ‘[Top 30 Most In-Demand Jobs in Australia in 2023’](https://grabjobs.co/resources/most-in-demand-jobs-in-australia/) by [GRABJOBS](https://grabjobs.co/australia).

## **Appendix B**

### Find the error

1. Answer the question ‘Is the statement correct?’ for each statement. Justify why the statement is incorrect or correct using calculations.

|  |  |  |
| --- | --- | --- |
| Statement | Is this statement correct? | Justification |
| 1 week = 7 days |  |  |
| 1 week = 168 hours |  |  |
| 5 days = 120 hours  |  |  |
| 2 years = 52 fortnights |  |  |
| 1 year = 25 fortnights |  |  |
| 3 months = 12 weeks |  |  |
| 12 months = 1 year |  |  |
| 1 month = 30 days |  |  |
| 1 hour = 60 seconds |  |  |
| 1 hour = 60 minutes |  |  |
| Annually = 12 months |  |  |
| 1 month = $4\frac{1}{2}$ weeks |  |  |
| 6 months = 26 weeks |  |  |
| 6 months = $\frac{1}{2}$ of 365 days |  |  |
| 1 month = 4.2 weeks |  |  |
| 1 fortnight = 14 days |  |  |

## Appendix C

### How much money is that?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Job | Annual | Monthly | Fortnightly | Weekly |
| 1 | Civil engineer | $102 000 |  |  |  |
| 2 | Plumber | $80 004 |  |  |  |
| 3 | IT security specialist |  | $12 500 |  |  |
| 4 | Logistics manager |  | $9166.67 |  |  |
| 5 | Welder |  |  | $2500 |  |
| 6 | Registered nurse |  |  | $3769.23 |  |
| 7 | Childcare worker |  | $6000 |  |  |
| 8 | Project manager | $145 000 |  |  |  |
| 9 | Dentist |  |  |  | $3846.15 |
| 10 | Hospitality manager |  | $4750 |  |  |
| 11 | Construction manager | $125 000 |  |  |  |
| 12 | Heavy vehicle mechanic |  | $11 500 |  |  |
| 13 | Chef |  |  |  | $1461.54 |
| 14 | Human resource manager | $128 500 |  |  |  |
| 15 | Aged and disability care worker |  |  |  | $1769.23 |

## Sample solutions

### Appendix B – Find the error

|  |  |  |
| --- | --- | --- |
| Statement | Is this statement correct? | Justification |
| 1 week = 7 days | Correct |  |
| 1 week = 168 hours | Correct  | 7 x 24 = 168  |
| 5 days = 120 hours  | Correct | 5 x 24 = 120 |
| 2 years = 52 fortnights | Correct | 2 x 26 = 52 |
| 1 year = 25 fortnights | Incorrect | 1 year = 26 fortnights |
| 3 months = 12 weeks | Incorrect | There is not 4 weeks in each month. |
| 12 months = 1 year | Correct |  |
| 1 month = 30 days | Incorrect | Months are not equal |
| 1 hour = 60 seconds | Correct |  |
| 1 hour = 60 minutes | Correct |  |
| Annually = 12 months | Correct |  |
| 1 month = $4\frac{1}{2}$ weeks | Incorrect | Months are not equal |
| 6 months = 26 weeks | Incorrect | Months are not equal |
| 6 months = $\frac{1}{2}$ of 365 days | Incorrect | Months are not equal |
| 1 month = 4.2 weeks | Incorrect | Months are not equal |
| 1 fortnight = 14 days | Correct | 7 x 2 = 14 |

### Appendix C – How much money is that?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Job | Annual | Monthly | Fortnightly | Weekly |
| Civil engineer | $102 000 | $8500 | $3923 | $1962 |
| Plumber | $80 004 | $6667 | $3077.08 | $1538.54 |
| It security specialist | $150 000 | $12 500 | $5769.24 | $2884.62 |
| Logistics manager | $110 000 | $9166.67 | $4030.77 | $2115.38 |
| Welder | $65 000 | $5416.67 | $2500 | $1250 |
| Registered nurse | $98 000 | $8166.67 | $3769.23 | $1884.62 |
| Childcare worker | $72 000 | $6000 | $2769.23 | $1384.62 |
| Project manager | $145 000 | $12 083.33 | $5576.92 | $2788.46 |
| Dentist | $200 000 | $16 666.67 | $7692.31 | $3846.15 |
| Hospitality manager | $57 000 | $4750 | $2192.31 | $1096.15 |
| Construction manager | $125 000 | $10 416.67 | $4807.69 | $2403.85 |
| Heavy vehicle mechanic | $138 000 | $11 500 | $5307.69 | $2654.85 |
| Chef | $76 000 | $6333.33 | $2923.08 | $1461.54 |
| Human resource manager | $128 500 | $10 708.33 | $4942.31 | $2471.15 |
| Aged and disability care worker | $92 000 | $7666.67 | $3538.46 | $1769.23 |

## References

This resource contains NSW Curriculum and syllabus content. The NSW Curriculum is developed by the NSW Education Standards Authority. This content is prepared by NESA for and on behalf of the Crown in right of the State of New South Wales. The material is protected by Crown copyright.

Please refer to the NESA Copyright Disclaimer for more information [https://educationstandards.nsw.edu.au/wps/portal/nesa/mini-footer/copyright](https://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Feducationstandards.nsw.edu.au%2Fwps%2Fportal%2Fnesa%2Fmini-footer%2Fcopyright&data=05%7C01%7CCaitlin.Pace1%40det.nsw.edu.au%7C9c2c1a9f59c94d2df30708dafa7edb23%7C05a0e69a418a47c19c259387261bf991%7C0%7C0%7C638097720042599463%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=BzQh0UsffVZE3eO22b2Xba3p0VMOBZSHfS21FGHXtZM%3D&reserved=0).

NESA holds the only official and up-to-date versions of the NSW Curriculum and syllabus documents. Please visit the NSW Education Standards Authority (NESA) website <https://educationstandards.nsw.edu.au/> and the NSW Curriculum website [https://curriculum.nsw.edu.au/home](https://curriculum.nsw.edu.au/).

[Mathematics K–10 Syllabus](https://curriculum.nsw.edu.au/learning-areas/mathematics/mathematics-k-10-2022) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2022.

Berard V (n.d.) ‘[Top 30 Most In-Demand Jobs in Australia in 2023’](https://grabjobs.co/resources/most-in-demand-jobs-in-australia/), *GRABJOBS*, accessed 8 September 2023.

**© State of New South Wales (Department of Education), 2023**

The copyright material published in this resource is subject to the Copyright Act 1968 (Cth) and is owned by the NSW Department of Education or, where indicated, by a party other than the NSW Department of Education (third-party material).

Copyright material available in this resource and owned by the NSW Department of Education is licensed under a [Creative Commons Attribution 4.0 International (CC BY 4.0) license](https://creativecommons.org/licenses/by/4.0/).



This license allows you to share and adapt the material for any purpose, even commercially.

Attribution should be given to © State of New South Wales (Department of Education), 2023.

Material in this resource not available under a Creative Commons license:

* the NSW Department of Education logo, other logos and trademark-protected material
* material owned by a third party that has been reproduced with permission. You will need to obtain permission from the third party to reuse its material.

**Links to third-party material and websites**

Please note that the provided (reading/viewing material/list/links/texts) are a suggestion only and implies no endorsement, by the New South Wales Department of Education, of any author, publisher, or book title. School principals and teachers are best placed to assess the suitability of resources that would complement the curriculum and reflect the needs and interests of their students.

If you use the links provided in this document to access a third-party's website, you acknowledge that the terms of use, including licence terms set out on the third-party's website apply to the use which may be made of the materials on that third-party website or where permitted by the Copyright Act 1968 (Cth). The department accepts no responsibility for content on third-party websites.