

Travel Project

Learning Area(s)	Mathematics & Geography	Year(s)	5, 6 & 7
Description			
AC Geography : Year 5 Factors that shape the human and environmental characteristics of places continues to develop students understanding of place by focusing on the factors that shape the characteristics of places. In exploring the interconnections between people and environments, students examine how climate and landforms influence the human characteristics of places, and how human actions influence the environmental characteristics of places. They also examine how human decisions and actions influence the way spaces within places are organised and managed. They learn that some climates produce hazards such as bushfires and floods that threaten the safety of places and gain an understanding of the application of the principles of prevention, mitigation and preparedness as ways of reducing the effects of these hazards. Students mental map of the world and their understanding of place is further developed through learning about the location of the major countries of Europe and North America and examining the effects of people on the environmental characteristics of places in these countries.			
AC Geography : Year 6 A diverse and connected world takes a global view of geography and focuses particularly on the concepts of place and interconnections. Students learn about the diversity of peoples and cultures around the world, the indigenous peoples of other countries, the diversity of countries across the world and within the Asia region. They reflect on cultural differences and similarities, and on the meaning and significance of intercultural understanding. The focus of study becomes global, as students examine Australias connections with other countries and events in places throughout the world, and think about their own and other peoples knowledge of other countries and places. Students mental maps of the world and their understanding of place are further developed through learning the locations of the major countries in the Asia region, and investigating the geographical diversity and variety of connections between people and places.			
AC Geography : Year 7 There are two units of study in the Year 7 curriculum for Geography: Water in the world and Place and liveability.			
AC Mathematics : Year 5 At this year level: Understanding includes making connections between representations of numbers, using fractions to represent probabilities, comparing and ordering fractions and decimals and representing them in various ways Fluency includes choosing appropriate units of measurement for calculation of perimeter and area, using estimation to check the reasonableness of answers to calculations and using instruments to measure angles Problem Solving includes formulating and solving authentic problems using numbers and measurements, creating transformations and identifying line and rotational symmetries Reasoning includes investigating strategies to perform calculations efficiently, creating financial plans, interpreting results of chance experiments and interpreting data sets			
AC Mathematics : Year 6 At this year level: Understanding includes describing properties of different sets of numbers, using fractions and decimals to describe probabilities, representing fractions and decimals in various ways and describing connections between them, and making reasonable estimations Fluency includes representing negative numbers on a number line, calculating simple percentages, using brackets appropriately, converting between fractions and decimals, using operations with fractions, decimals and percentages, measuring using metric units, and interpreting timetables Problem Solving includes formulating and solving authentic problems using numbers and measurements, creating similar shapes through enlargements, representing secondary data, and calculating angles Reasoning includes explaining mental strategies for performing calculations, describing results for continuing number sequences, investigating new situations using known properties of angles, explaining the transformation of one shape into another, and inferring from the results of experiments			
AC Mathematics : Year 7 At this year level: Understanding includes describing patterns in uses of indices with whole numbers, recognising commonalities between fractions, decimals, percentages and ratios, plotting points on the Cartesian plane, identifying angles formed by a transversal crossing a pair of parallel lines, and connecting the laws and properties of numbers to algebraic terms and expressions Fluency includes calculating accurately with integers, representing fractions and decimals in various ways, investigating best buys, evaluating measures of central tendency and calculating areas of shapes and volumes of prisms Problem Solving includes formulating and solving authentic problems using numbers and measurements, creating transformations and identifying symmetry, calculating angles and interpreting sets of data collected through chance experiments Reasoning includes applying the number laws to calculations, applying known geometric facts to draw conclusions about shapes, applying an understanding of ratio and interpreting data displays			

Unit Focus

The focus of this unit is to integrate Geography & Mathematics lessons enabling students to understand travel factors and perspectives. Students create their own overseas vacation using a range of sources (websites, travel brochures etc.) and gain an understanding of the mathematical processes involved with travel. Students enhance Mathematical skills of calculating, designing, problem solving, estimating, creating budgets, sales & percentages, measurement of time and distance. Students will also draw on geographical skills in order to learn about the culture of their destination.

Stage 1: Desired Results**Transfer of knowledge**

- To use Mathematical concepts in real life contexts (World travel)
- To develop an understanding of different cultures across the world
- To be able to plan ahead and develop organisational skills

Understanding

- Different countries have different cultural traditions and ways of life that differ from Australia
- The many forms of Mathematics that is involved in travel (budgets, percentages, decimals, timetables, timelines etc.)
- The ability to solve problems is extremely important in mathematics
- It is important to compare offers available in order to get realistic deals when planning in financial mathematics

Essential Questions

- How do places, people & cultures differ across the world?
- What are Australians connections between places and people?
- What mathematical formulas and conventions are used in planning a trip overseas?
- Why is it important to have an understanding about other countries and cultures?

Knowledge

- How diverse the world is with different people and cultures
- Cultural differences and understandings and the significance of cultural understanding
- How to solve problems using decimals, percentages and measurements
- How to plan ahead and structure a holiday. The organisational elements (Real life skills)

Skills

- Explaining characteristics of different locations across the world
- Describing the location of different countries
- Interpreting timetables
- Calculating common percentage discounts on sale items
- Comparing costs involved in travel in order to make financial decisions

Curriculum**Curriculum**

AC Geography : Year 5 : ACHGK026 The location of the major countries of Europe and North America in relation to Australia and the influence of people on the environmental characteristics of places in at least two countries from both continents

AC Geography : Year 6 : ACHGK031 The location of the major countries of the Asia region in relation to Australia and the geographical diversity within the region

AC Mathematics : Year 5 : ACMNA100 Number and place value: Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies

AC Mathematics : Year 5 : ACMNA106 Money and financial mathematics: Create simple financial plans

AC Mathematics : Year 5 : ACMNA291 Number and place value: Use efficient mental and written strategies and apply appropriate digital technologies to solve problems

AC Mathematics : Year 6 : ACMNA123 Number and place value: Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers

AC Mathematics : Year 6 : ACMNA132 Money and financial mathematics: Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies

AC Mathematics : Year 7 : Money and financial mathematics: Investigate and calculate & best buys with and without digital technologies

AC Mathematics : Year 7 : ACMNA158 Real numbers: Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies

AC Geography : Year 7 : ACHGS048 Collect, select and record relevant geographical data and information, using ethical protocols, from appropriate primary and secondary sources

AC Mathematics : Year 5 : pose questions and make predictions based on experience in similar situations

AC Mathematics : Year 5 : reflect on mathematics and identify the contribution of mathematics to personal activities

Other Goals

ACARA General Capabilities

GC41 analyse information logically and make reasoned judgments

GC36 apply logic and strategies to uncover meaning and make reasoned judgments

GC40 generate and develop ideas and possibilities

GC44 transfer their knowledge to new situations

GC56 identify increasingly sophisticated characteristics of their own cultures and the cultures of others

GC60 reflect on how intercultural encounters have affected their thoughts, feelings and actions

Stage 2: Assessment Evidence

Criteria	Description
- Explains budget for holiday - Accurately measures & calculates holiday costing (measurement, addition, percentages, timetables) - Ability to plan and sequence events and activities	Part 1: Travel Budget Costing Students create their dream holiday through filling out their vacation booklet. Students go through the booklet at their pace researching and recording; flight costs, accommodation costs, sales percentages/discounts, activity itinerary, rental car log of distances & daily timetable.
- Ability to identify and discuss cultural similarities and differences - Identifies features that make the country a liveable place - Mapping skills: able to demonstrate an understanding of where the county is located	Part 2: Tourism Information Students will create an informational text in the medium of their choice (pamphlet, poster, PowerPoint, Prezi etc.) explaining cultural traditions of their chosen holiday country. Students will discuss similarities & differences between their country and Australia. The information must include maps, charts and diagrams explaining the country.

Stage 3: Lesson Sequence

Lesson	Description
Prior Knowledge	What do we know: 1. <u>Class Discussions:</u> What do we know about travelling overseas? 2. What processes are involved? 3. What mathematics skills are involved? 4. What makes places liveable? Homework: Brainstorm three different ways that Mathematics is used when planning a holiday somewhere.
Lesson 1	Countries Brainstorm • Class to share and discuss homework task. Explain Tasks • Explain that students are going to be creating their dream holiday. Countries Exploration • Brainstorm: Students brainstorm some of the countries that they may like to further explore for a holiday project • Brochure Exploration: Students use travel brochures supplied to have a look at some different countries. a. In groups students have 2-3 minutes to share with a partner a travel brochure. Students write down some positives about travel in this country. b. Continue this process swapping brochures until each group has had a look at each brochure of the continents. c. Students then use this brainstorm to narrow down their choice to one continent/country that they would like to focus upon for their project. *Note- Contact local Travel agent/ Fight Centre- asking for out of date brochures that can be used in the classroom.
Lesson 2	Flights & Accommodation 1. Discuss: how to read the travel brochure- accommodation prices & processes involved with this section 2. Flights: Students use laptops/computers to research the cost of flights from Australia to chosen country a. What flight company will you use? b. How will you fly? Economy? Business? What is affordable? c. What is the best deal you can get? When is the best time to fly? d. What is the total cost of the flights? 3. Accommodation: Students use travel brochures to find the type of accommodation and costing a. Where is the best location to stay in your country? b. Is it central to what you will be doing? c. How many nights will you stay there? d. What is the total cost?
Lesson 3	Transport & Measurement 1. Discuss: What are the different transport options for your country? 2. Transport cost: Students then find out the cost of transport throughout their overseas holiday. a. What transport will be used? Bus/car/train etc. b. Will a rental car be used? c. What is the total cost of transport? 3. Transport Distances: Students then need to fill out a table detailing the distances that they

	will be travelling with their transport. Students will use Google Maps to track the different distances that they will travel. Travelling from: Travelling to: Total distance in kms: Extension: Work out petrol costs
Lesson 4	Tours/ activities & spending money Discuss: What activities might people do when they are on holiday? - Explain that students need to plan one tour/activity for each day on their holiday - Plan out ideas Research: Use computers to find tours and record costs - Choose budget and spending money
Lessons 5	Best buys & total costing Best Buys: You have contacted a travel company who has offered further discounts off your holiday if you book through them. Calculate the total discount for your trip depending on each choice. Work out your answers first then check using a calculator. Option 1: ✓ 10% off all flights & accommodation Option 2: ✓ 25% off all accommodation Option 3 ✓ 50% off all tours and activities - Create a table of the total costs for your trip.
Performance Task 1	Part 1: Travel Budget Costing- Assignment due
Lesson 6-10	Part 2: Task- Students will create an informational text in the medium of their choice (pamphlet, poster, PowerPoint, Prezi etc.) explaining cultural traditions of their chosen holiday country. Students will discuss similarities & differences between their country and Australia. The information must include maps, charts and diagrams explaining the country. Students are given project outline. They then use the following lessons to complete research and make their presentation
Performance Task 2 Due	Part 2: Tourism Information – Assignment due

Websites/ Resources

Resource Description	Website
Interactive Maps	http://www.amcharts.com/visited_countries/ http://www.mapsofworld.com/world-map-viewer.html
Google Maps	https://maps.google.com.au
GeoGuessr	https://geoguessr.com/
<u>Travel Project:</u> <u>Complete assignment</u> <u>information/</u> <u>PowerPoint for class</u>	https://www.teacherspayteachers.com/Product/Travel-Project-2174830

Leasha's Lessons

Travel Math	http://www.travelmath.com/
Maths with travel & transport	http://www.education.nt.gov.au/__data/assets/pdf_file/0017/5291/maths_with_travel_transport.PDF
Budgeting for a trip	http://www.scholastic.com/teachers/lesson-plan/budgeting-trip
Holiday Planning Maths	http://www.tesaustralia.com/ResourceDetail.aspx?storyCode=6202840