| AR LEARNING TASK  An Australian Animals Adventure in AR | Learning area |
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| Science |
| Year level |
| Foundation |
| Duration |
| 60 minutes |

| Task summary  This task enables students to explore and view a number of Australian animals in an immersive manner using Augmented Reality (AR) technology. |
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| Session overview | Students can identify different Australian animals, discuss their external features, and describe how they can be grouped using those features. |
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| Digital technologies | * VR * AR * Robotics * Drones * Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Required resources | For detailed information on how to access the apps mentioned in this learning task, please visit the edSpark apps page <insert link>.  **Hardware:**   * iPad / tablet * Smart board / interactive white board / display screen   **Videos:**   * ["Over in Australia" by Marianne Berkes & Jill Dubin | Preschool Singalong Read Aloud Music for Kids](https://www.youtube.com/watch?v=VI9iXDVVWKg)(3:29) A sing/read-along video of the book, “Over in Australia” by Marianne Berkes about different Australian animals in various environments.   **Apps:**   * Google app (via [Google Play](https://play.google.com/store/apps/details?id=com.google.android.googlequicksearchbox) or [iOS](https://apps.apple.com/us/app/google/id284815942)) or Web browser (Chrome / Safari)   **Teaching resources**:   * <placeholder link for 13 - Teaching Deck> - This is a slide deck template that teachers can download and use for this learning task * <placeholder link for 13 - Word List> (PDF) |
| Other resources to try (optional) | N/A |
| Planning and preparation *NOTE: This learning task may be introduced in the middle or at the end of the unit.* | **Assumptions**  Students would have had:   * Previous lessons on features of animals, their body parts and functions, as well as their habitats. * Basic skills in using mobile devices.   **Additional preparations for teachers:**   * Ensure all devices are fully charged and operational and all necessary apps are installed and working properly. * Make sure to have access to an active internet connection. * View the introductory video ahead of the lesson to make sure it is appropriate for the class. * Check that the <placeholder link for 13 - Teaching Deck> is accessible and ready. * Print adequate copies of the <placeholder link for 13 - Word List> (PDF) for distribution amongst students. |

# Task sequence

| 1 Introductory activity / Provocation (5 mins) | | Using slide 2 of the <placeholder link for 13 - Teaching Deck>, show students the ["Over in Australia" by Marianne Berkes & Jill Dubin | Preschool Singalong Read Aloud Music for Kids](https://www.youtube.com/watch?v=VI9iXDVVWKg) video (3:29). If they are familiar with the song/book, encourage the students to sing along with the video. |
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| 2 Prior knowledge check (5 mins) | | Discuss the following questions:   * Which Australian animals do you know? * What does the animal look like? (e.g., koalas have long claws on their paws) * What are those features for? (e.g., koala’s claws are for climbing trees and protecting themselves from predators) * Where do you think the animal lives? |
| 3 Activities  (35 mins) | | Tell the class that during this lesson they will be looking at Australian animals up close using a type of technology called Augmented Reality (AR). Use slide 3 of the teaching deck to explain what AR is.  Distribute devices to students. Depending on the number of devices available, or student experience with devices, students may need to work in groups of 2.  Using slide 4 and 5, model to students how to launch a web browser and type in the first Australian animal they wish to view in AR (koala).  After typing the animal’s name, students need to scroll down until they see the ‘3D’ button. To launch the AR viewer, students tap on the ‘View in your space’ button. Students may need assistance to find the ‘3D’ button.  Ensure students are pointing the device on a flat surface, and moving it back and forth slowly to trigger the AR experience.  Once everyone has successfully launched a koala in AR, distribute the <placeholder link for 13 - Word List> to students.  Allow some time for students to freely explore other Australian animals from the word list and to practise launching animals in AR.  Come together as a class and view the word mat on slide 6, discuss what features animals have. Then view slides 7 and 8 of the teaching deck. Explain to students that this time, they will be assigned an animal to observe closely. They will need to:   * Look at the features their animal has (arms, legs, nose, ears, etc.) * Discuss the purpose of each feature (koalas use their arms to climb trees) * Discuss the habitat of the animal with their partner.   Assign an animal to each student/pair and allow time for them to launch their animal in AR and discuss the three prompts (features, purpose, habitat).  Come together as a class and ask students what they observed about their animal. Fill out the table on slide 7 and 8 accordingly. |
| 4 Check for understanding  (15 mins) | | Ask students to choose one of their favourite Australian animals, view it in AR once again and take a photo/video by using the white circular button on the bottom of the screen.  Students can post the photo or video of their chosen animal on the learning management system used by the class (e.g. SeeSaw). Instruct students to record their voice to explain the animal they chose, its features and the purpose of these features. |

| Differentiation for students with additional needs | Extension ideas | Video tips |
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| Each Australian animal can be viewed in 3D mode and not in AR if desired / needed.  Break down the instructions for viewing the Australian animals in AR into smaller steps. | Students design a habitat for a chosen AR Australian animal, and view the animal in AR to see it in its natural habitat. | The video for this learning task demonstrates how to view Australian animals in AR using devices. |

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# Curriculum connections

| Australian Curriculum Version 9.0 | **Foundation - Science**  Observe external features of plants and animals and describe ways they can be grouped based on these features (AC9SFU01) |
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| Cross-curriculum priorities | * Aboriginal and Torres Strait Islander Histories and Cultures * Asia and Australia's Engagement with Asia * Sustainability |
| General capabilities | * Literacy * Numeracy * Digital Literacy * Critical and creative thinking * Personal and social capability * Ethical understanding * Intercultural understanding |