

## *Year 5 Design Brief Green Keeper*



**Subject:** *Technologies*

**Background:** *Students have been learning about the environment and issues that occur in the local community. They have good understanding of technologies and sound level of literacy and numeracy skills. Also, students have been learning how to represent data through devices including, ipads, iphones, tablets and websites.*

**Design Challenge:** *To learn more about how design apps to collect data and how to display this to allow people to access the information.*

**Criteria:** *Your project team must work together, complete task on deadline, clear design, and data collector for your app*

**Materials:** *Pen, paper, colours, colour paper*

## **Information for teachers**

This resource includes:

- Page 1 - Design brief
- Page 2 – Information for teachers
- Page 3 – Differentiation and general information
- Page 4 – ‘Green Keeper Activities
- Page 15 – Rubric

**Objective:** Students will learn that app can be created to serve a purpose or want. They will develop skills of considering a wide range of perspectives in their group. Students will achieve this through design process, which will scaffolded in activities to help guide their understandings.

This resource integrates aspects of literacy and critical and creative thinking general capabilities (ACARA, 2015). Also, students work collaboratively to design their own product, and engage in different activities to develop this view.

### **General Capabilities**

**Literacy:** navigate, read and view a variety of challenging subject-specific texts with a wide range of graphic representations (ACARA, 2015).

**Critical and Creative thinking:** pose questions to probe assumptions and investigate complex issues, clarify information and ideas from texts or images when exploring challenging issues and critically analyse information and evidence according to criteria such as validity and relevance (ACARA, 2015)

### **Curriculum**

#### **Cross Curriculum priorities: Sustainability**

OL.3 Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems.

OL.7 Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.

#### **Connected Curriculum:**

**Geography Understanding:** The impact of bushfires or floods on environments and communities, and how people can respond (ACHASSK114)

**Prior knowledge:** Students explain how products, services and environments are designed to best meet needs of communities and their environments. Students create designed solutions for each of the prescribed technologies contexts

#### **New Knowledge to be assessed: Technologies**

##### **Digital Technologies Knowledge and Understanding**

*Examine the main components of common digital systems and how they may connect together to form networks to transmit data (ACTDIK014) (ACARA, 2015)*

##### **Digital Technologies Processes and Production Skills**

Design a user interface for a digital system (ACTDIP018)

## General

**Materials:** List provided on design brief cover page

**Preparation:** Exemplar and photos of previous creations and/or teacher made example

**Safety Issues:** Discuss safe use of – scissors, glue, pointy objects, and handling of vegetation

**Class Management:** 2-3 students per group, inside and outside supervision, delegation of group roles

**Time management:** (Lessons are 50 minutes long.)

Lesson 1 – Introduce design brief and watch videos and explore environmental issues (droughts, floods, pollution and global warming)

Lesson 2 – brainstorm, plan, design and label beginnings of app

Lesson 3 and 4 –build app and confirm suitability using the checklist that you made

Lesson 5 – exchange with peer group and give feedback to each other: reflect, record, and evaluate your app design– complete an extension activity if finished early

### ***Differentiation:***

- Multimodal presentations for visual learners
- No time allocations for activities (Self-paced)
- Have alternative from writing such as speech recognition software
- Allow option for individual work for student who feel uncomfortable working in groups

### ***Possible extension activities:***

- Create a colour design or theme for app
- Design an advertisement for the app
- PowerPoint or storyboard on what the purpose of the app is
- Assessing other environmental apps.

# *Green Keeper*



*Name:*

*Group members:*

Answer these questions in the space below:



1. What is the problem or need for the app?

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2. Why do we need to create app to save the environment? What are the reasons?

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3. What information do you want to collect in the app?

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# Answer these questions

*What are different perspectives and planning do you need to consider?*

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*Who is your target audience?*

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*How will this app help the audience to reduce or prevent the issue from occurring?*

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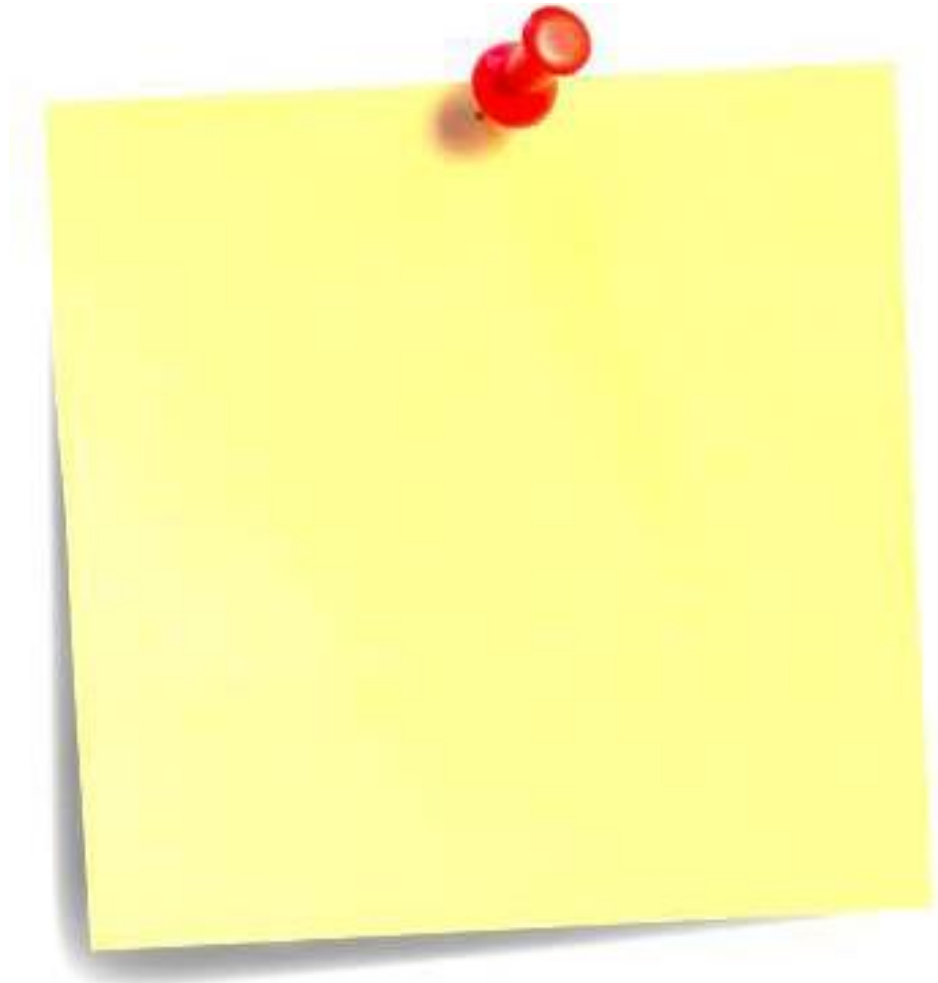
# Brainstorm ideas



Use the boxes to list ideas on what environmental issue will you target and why

<i>Idea 1</i>	<i>Idea</i>
<i>Idea 2</i>	<i>Idea</i>
<i>Idea 3</i>	

## *List of materials/resources needed to create app*



### Clues

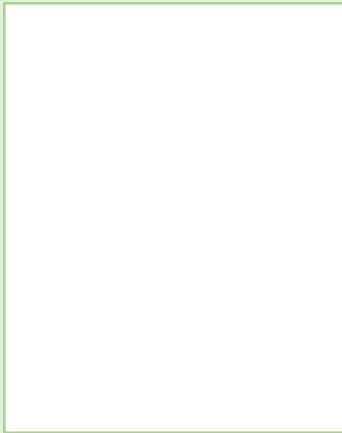
1. Paper
2. Internet- google, app programs, YouTube



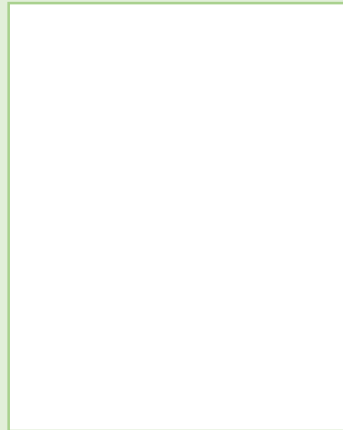
## Draw and label the app

Title:

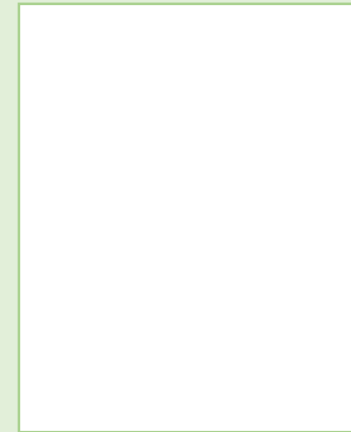
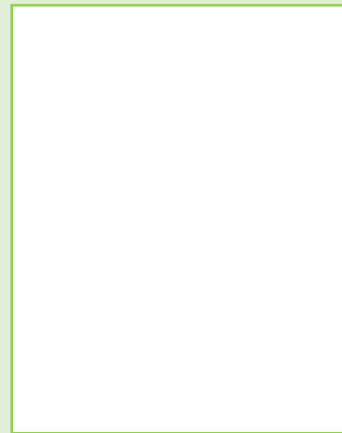
Welcome page



Data collection



Other pages



We think this is the best design because

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The program we are using to create the app is

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*List of things to check off*

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

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

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

What we think you need to improve on?

What we think works well?

## *Feedback on app*

Have you thought of?

## Evaluate your app

Evaluation 1 - after feedback/before use

What are positives of your design? \_\_\_\_\_

What could you add to improve your app?

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Evaluation 2 - after use

What worked well in your app?

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What could you add to improve your app?

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Did you have another design that would be better? \_\_\_\_\_

Why? \_\_\_\_\_

If you made it again, what would you do differently?

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Why? \_\_\_\_\_

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*Final design of your app*

*What does your final design look like?*

*How could you improve on your design? Draw a picture of improvements*

Green Keeper Rubric

Term: 2/2016

Student Name:

Year 5 Technologies

Assessment criteria	<b>A</b>  <b>Excellent</b> <b>45-50</b>	<b>B</b>  <b>Good</b> <b>35-45</b>	<b>C</b>  <b>Satisfactory</b> <b>25-35</b>	<b>D</b>  <b>Developing</b> <b>15-24</b>	<b>E</b>  <b>Limited</b> <b>Below 15</b>
Identifies environmental issue and reason for the app /10 marks	Identifies and clearly explains the environmental issue in detail and how the app will advocate the issue to audience	Identifies and clearly explains the environmental issue and why it is issue	Identifies the environmental issues and explains why this is required to have app created	Identifies the environmental issue	With assistance identifies environmental issue
Select design and program to design the app /10 marks	Selects a planned and detailed design with appropriate program to create the app	Selects a planned design with the appropriate program to create the app	Selects design and program for the design	Selects design with no indication of what program	With assistance selects design
Visual representation on the design of app and how it will interpret data / 20 marks	Clearly detailed and labelled drawings with detailed design description on design of the app	Clearly detailed and labelled drawings with detailed description on how the app will work	Clearly detailed drawings with description on how the app will work	Drawings with small description	With assistance create drawings with description
Reflects on process of the design /10 marks	Detailed reflection on improvements of app and explained how well it worked	Clear reflection on improvements of the app and how well it worked	Reflects on the app and lists improvements	Reflects briefly on how to improve app	With assistance lists improvements

Comments:

Example

