Year 5 Floods, Storms and Bushfires

Lesson 10

Introduction	**Floods, Storms and Bushfires – A Cross-Curricular Unit of Work**
	In the previous lesson, we compared and contrasted ways to prepare for storms/floods and bushfires, and used this information to create a safety procedure. In this lesson, there is an Option 1 and Option 2.
	Option 1 is a Design and Technologies challenge, and Option 2 is a Digital Technologies challenge.
	WALT – construct a new home, which is flood and fire-proof, using Design and Technology skills, and design an interactive PowerPoint presentation. **WILF –** research skills, designing a sustainable home, or creating an interactive PowerPoint presentation. **TIB-** Australia has houses built in areas that are prone to floods and fires, and we should all be aware of how to protect ourselves in the event of a flood or fire.
Warm Up/Main lesson (10 mins)	1. We have provided two (2) technology challenges. You may either select one challenge for all students or you may wish to advise students that they have two (2) options for the next couple of lessons. 2. Provide images of houses that have been built to withstand floods and fires, by researching 'fire-proof houses and flood-proof houses'. 3. Hand out the Design Challenge/s: **Option 1 Design Challenge: Design & Technologies** and/or **Option 2: Design Challenge: Digital Technologies** 4. Hand out the corresponding Criteria Sheet/s: **Design Challenge: Criteria Sheet – Design & Technologies** and/or **Design Challenge: Criteria Sheet – Digital Technologies**.
Main lesson (40 mins)	Discuss the requirements for these projects with the students, and answer any questions. Option 1 (Provide Design Challenge and Criteria Sheets to students): 1. Depending on the resources available to your students, they can create a model of their house, draw it or provide a detailed list of all the items they have chosen to build their house. 2. Suggest taking notes for ideas, and drawing several designs before finalising their choice. 3. Students should aim to complete research and a rough design for teacher or peer review that indicates at least some of the chosen materials and examples they've considered from around the world. 4. Advise students that the class will be voting for the design that best meets the criteria. Option 2 (Provide Design Challenge and Criteria Sheets to students): 1. Students will build an interactive PowerPoint presentation or game that teaches younger students about preparation for floods and fires. 2. Advise students to use the materials and knowledge they've amassed during the unit.

	3. Advise students to consider the needs of younger learners, and that younger students will need simple vocabulary and a lot of visual text to support learning. 4. Students should aim to complete a flowchart for teacher or peer review that indicates the flow of the slideshow, with the number of slides required. NOTE: Additional class time will be required if this project is to be completed within school time.
Review (10 mins)	All students are to present their work to the class, and to either of the following: • Prep classes: explaining the familiar features of places people live in, and how they can be looked after, OR • Year 1 classes: to show them how to care for the natural, managed and built features in their environment. They need to show students the ways they can maintain and protect places that are special to them (e.g. home, school, church) from damage that can occur through flood and bushfire.
Differentiation	Work with a partner. Teacher/school officer assistance. Write/record a television commercial to advertise the advantages of your house.
Resources	Option 1 Design Challenge: Design & Technologies Option 2: Design Challenge: Digital Technologies Design Challenge: Criteria Sheet – Design & Technologies Design Challenge: Criteria Sheet – Digital Technologies Computers, laptops, iPads. Student books Books on natural disasters in Australia. www.disaster.logan.qld.gov.au www.logan.qld.gov.au/disasters Get Ready Queensland
ACARA Content Descriptions	**Humanities and Social Sciences** The impact of bushfires or floods on environments and communities, and how people can respond (ACHASSK114) The environmental and human influences on the location and characteristics of a place and the management of spaces within them (ACHASSK113) Locate and collect relevant information and data from primary and secondary sources (ACHASSI095, ACHASSI123) Use criteria to make decisions and judgements and consider advantages and disadvantages of preferring one decision over others (ACHASSI103, ACHASSI131) Plan, rehearse and deliver presentations for defined audiences and purposes incorporating accurate and sequenced content and multimodal elements (ACELY1700) The difference between needs and wants and why choices need to be made about how limited resources are used (ACHASSK119) Types of resources (natural, human, capital) and the ways societies use them in order to satisfy the needs and wants of present and future generations (ACHASSK120) The key features of the electoral process in Australia (ACHASSK116) Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)