SASTA OLIPHANT SCIENCE AWARDS

SOUTH AUSTRALIAN SCIENCE TEACHERS ASSOCIATION

Highly Commended

Models & Inventions

Year 3-4

Adeline Wilson
Lila Nassery

Wilderness School

RISK ASSESSMENT FORM
Models & Inventions

This must be included with your report, log book or entry

NAME: LILA NASSERY, Adeline Wilson ID: 0788-011

SCHOOL: WILDERNESS SCHOOL

Activity: Give a brief outline of what you are planning to do.

DO A MODEL TO DEMONSTRATE WHAT HAPPENS TO A GRASS TREE AND GUM TREE AFTER A BUSHFIRE.

Are there possible risks? Consider the following:

- Chemical Risks: are you using chemicals? If so, check with your teacher that any chemicals to be used are on the approved list for schools. Check the safety requirements for their use, such as eye protection and eyewash facilities, availability of running water, use of gloves, a well-ventilated area or fume cupboard.
- Thermal Risks: are you heating things? Could you be burnt?
- Biological Risks: are you working with micro-organisms such as mould and bacteria?
- Sharps Risks: are you cutting things, and is there a risk of injury from sharp objects?
- Electrical Risks: are you using mains (240 volt) electricity? How will you make sure that this is safe? Could you use a battery instead?
- Radiation Risks: does your entry use potentially harmful radiation such as UV or lasers?
- Other hazards.

Also, if you are using other people as subjects in an investigation you must get them to sign a note consenting to be part of your experiment.

Risks	How I will control / manage the risk
HOT GLUE GUN BURN SPRAY PAINT FUMES IRRITATING HANDS WITH PVA	DON'T ~~WAW~~ WAVE IT AROUND DO IT OUTSIDE USE GLOVES

(Attach another sheet if needed.)

Risk Assessment indicates that this activity can be safely carried out

RISK ASSESSMENT COMPLETED BY (student name(s)): ADELINE WILSON
LILA NASSERY

SIGNATURE(S): Lila N Addy W

☑ by ticking this box, I / (we) state that my / (our) project adheres to the listed criteria for this Category.

TEACHER'S NAME: Nathan Pau SIGNATURE:

DATE: 1/8/21

REGENERATION OF XANTHORRHOEA & EUCALYPTUS AFTER BUSHFIRE

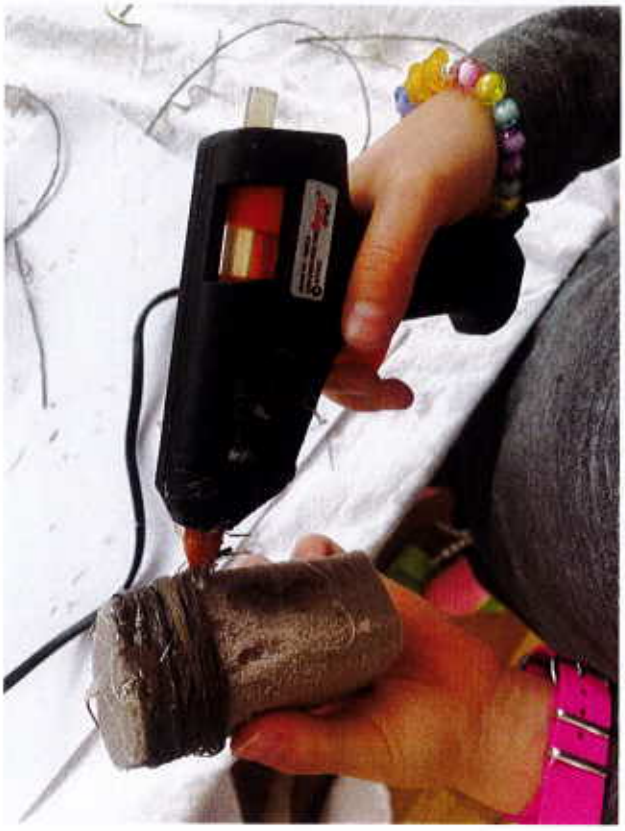
Lila Nassery and Adeline Wilson - Year 3

We went to Kangaroo Island after the bushfire and we saw some burnt gum trees (Eucalyptus) and grass trees (Xanthorrhoea) and this inspired us to make a model of it.

After the bushfire, Eucalyptus trees start growing new leaves. The fire doesn't damage the epicormic strands under the bark. The strands grow new shoots and leaves. These new leaves look completely different to the mature ones. The koalas don't eat the new leaves because they are too waxy and don't taste nice. This allows the tree to survive. This is called epicormic growth.

After the bushfire the grass trees start to flower. The flowers can grow over 4 metres tall. The fire will blacken the trunk and burn the leaves, but the inside of the trunk is ok. The trees don't die because the leaves around it get burnt and they protect the tree.

We used a lazy Susan to make it turn. We used wire and raffia to make the trees and leaves. We painted the background and used coconut shells and cinnamon sticks for logs, cotton wool for clouds and cellophane for fire.




The adults helped us research on the internet, buying materials, using the computer to type and print, putting together the base and partition of the model, cutting wires and demonstrating how to bend wires, how to use a hot glue gun and how to use spray paint. They helped put our video onto YouTube and to pack our model safely into a box.


A problem was we kept burning ourselves with the hot glue gun and we got our hands messy with the spray paint, so we had to use it more carefully. We tried using ground coffee for dirt but that didn't stick so we used tea leaves instead. Another problem was finding time to meet up because sometimes one person was sick or because of COVID lockdown - so we had to do some things individually.

To use the model, spin it clockwise.

The link to our video about our model on YouTube is:

https://m.youtube.com/watch?v=eCSPCU7Tj0E