

OSA RISK ASSESSMENT FORM

for all entries in (✓) ☐ Models & Inventions and ☒ Scientific Inquiry

This must be included with your report, log book or entry. One form per entry.

NAME: Elise Westrich

ID: 505-5099

SCHOOL: Glenunga International High School

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

My experiment will investigate the effect of cinnamon oil on inhibiting the germination and growth of ryegrass seeds. Since ryegrass seeds are considered an invasive species in Australia, wheat seeds will be used in replacement as they and ryegrass share many similar features. The seeds will be grown in Petri dishes filled with cotton wool and then sprayed with varying concentrations of cinnamon oil before being placed in an incubator for 6 days. The number of seeds that have germinated will be counted and the seed's plumule will also be measured to explore the effect of essential oil on the continuous growth of ryegrass seeds.

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
When broken, glassware often shatters into multiple sharp pieces.	Care should be taken when handling glassware including conical flask, volumetric pipettes, beakers, stirring rods and thermometers. Check glassware for any chips or cracks before use. If glass is to shatter, it should be swept up with a brush and dustpan and then placed into the designated glass disposal bin.
Allergy to cinnamon oil / raw chicken egg	Ask students who are working nearby if any are allergic to either of these items – if so, move to another bench in the room or another room altogether Wear gloves to minimise contamination
Electric shock from incubator	Each time the incubator is used the electrical safety should be checked.
Sharp points or the blades of scissors may cause puncture wounds or cuts	Hold scissors sharp point down / by one's side when moving around the room
Cinnamon oil emulsion solidifies when cooled	Disposal of Chemicals: cinnamon oil emulsion should be disposed of in the bin as when cooled may solidify resulting in damage to the drainage system.

Minimise the growth of any unwanted species (eg. wheat seed growth)	Wheat seeds will be disposed of in the bin, not down the sink. As raw egg is a food substance and therefore is likely not to be harmful, it will be disposed of down the sink.
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(Attach another sheet if needed.)

Risk Assessment indicates that this activity can be safely carried out

RISK ASSESSMENT COMPLETED BY (student name(s)): Elise Westrich

SIGNATURE(S): 

☒ By ticking this box, I/we state that my/our project adheres to the listed criteria for this Category.

TEACHER'S NAME: Matthew Maciunas

SIGNATURE: 

DATE: 20/07/21