Student RiskAssess

www.riskassess.com.au

Student RiskAssess is specially designed for students to do risk assessments themselves, either individually or as a group. It is particularly useful when conducting student-led investigations, such as practical-based Depth Studies, and for IB students.

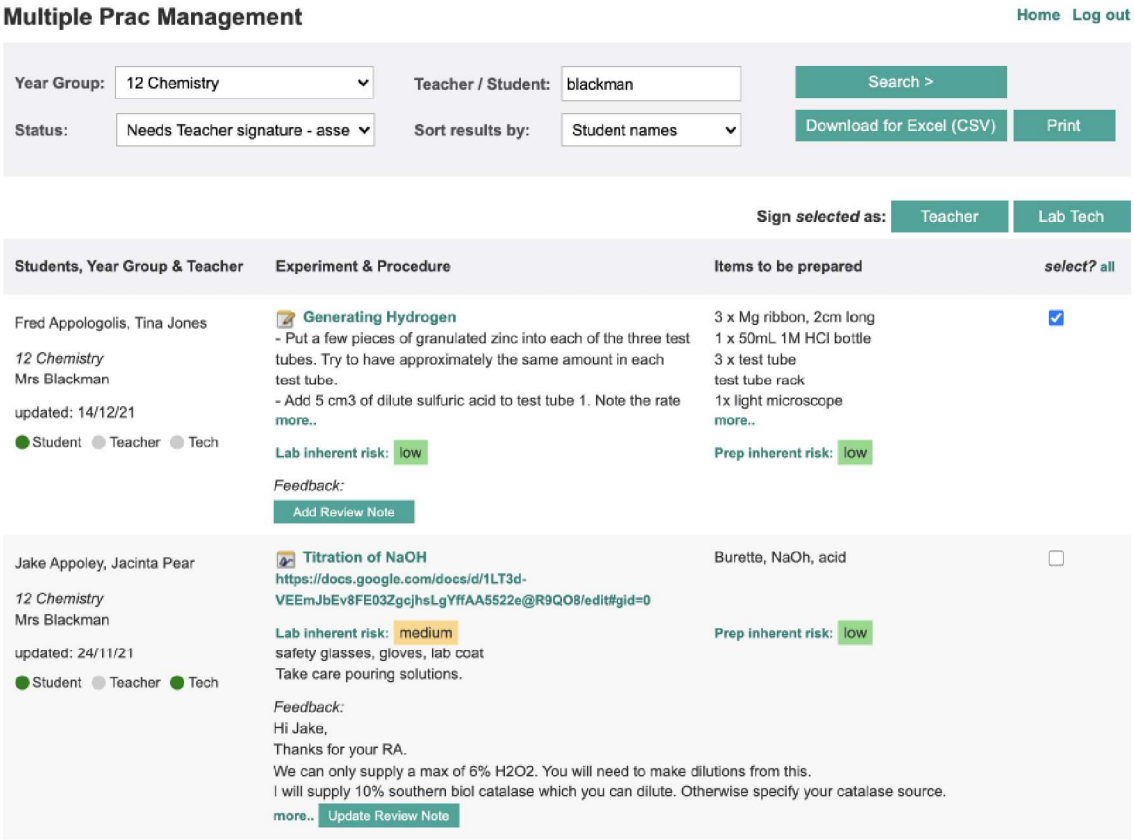
Helps students learn
Student RiskAssess helps students design their experiments more independently and become more aware of what they are doing rather than relying on the teacher to explain what to think about and to indicate the risks.

Simple to use
Student RiskAssess is user-friendly and includes online help screens and training videos. Students pick it up very quickly, and staff find it easy to use as it is so similar to Staff RiskAssess.

2 WEEK FREE TRIAL
send your school name to info@riskassess.com.au

Tried and tested in over 500 schools
More than 500 schools are now using Student RiskAssess and over 480,000 risk assessments have been performed.

Manage large numbers of pracs with ease
The "Multiple Prac Management" system in Student RiskAssess allows teachers and laboratory technicians to efficiently review, provide feedback and sign off on large numbers of student pracs in one go. It also helps with compiling order requests. It is a huge time saver when managing large numbers of student pracs.



Meet curriculum requirements

The Australian Curriculum for Science requires students to take an increasingly active role in considering safety and assessing risk as they progress from Year 7 to 12: recognising and managing risks from Year 7, developing and following risk assessments from Year 9 and conducting risk assessments in Years 11 and 12. Schools teaching the IB or extended investigations / depth studies are also required to conduct risk assessments for student-designed experiments.

Student assessment

Student RiskAssess includes an optional PIN feature on each risk assessment. This allows a student to create a risk assessment that is PIN-protected and can only be viewed by staff and that particular student. This stops copying and allows evaluation of student performance.

Unlimited access from classroom or home

Unlimited numbers of students and staff can access Student RiskAssess at the same time. Student RiskAssess can be used in the classroom on laptops, iPads and smart phones. Students and staff can access Student RiskAssess from home or from any location with an internet connection.

Special features for student use

- Different student login to keep student work separate from staff risk assessments.
- Students must agree to conduct each experiment safely in accordance with school rules and teacher instructions
- Student(s) assess risks on the basis of likelihood and consequences
- Student(s) assess inherent risk and record control measures

Special features for staff use

- Staff login with full access to all tools and all risk assessments
- Staff tools for efficient review and feedback on student work
- Separate scheduling system to keep students' work separate to staff risk assessments

Includes all the usual facilities of RiskAssess

- Database information on chemicals, equipment and biologicals
- GHS data on 1400 chemicals and their solutions
- Electronic templates that follow the International Standard on Risk Management (ISO 31000:2018)
- Archiving of electronic risk assessments for legal purposes
- Training videos for staff and students

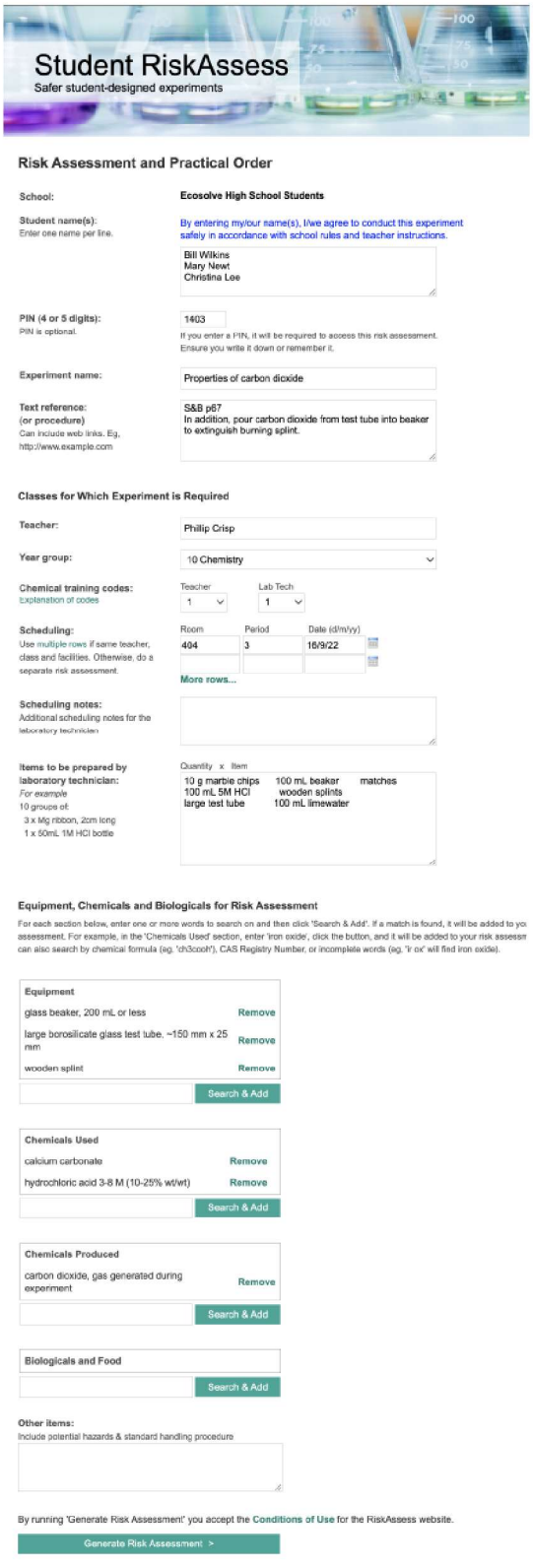
Subscribing

The cost of a year's subscription to Student RiskAssess is $350 (+GST) per school campus. This is in addition to the cost of a subscription to Staff RiskAssess. A subscription lasts 365 days from the date that payment is received and includes all upgrades during that period.

>> EXAMPLES

See below for a screenshot of Student RiskAssess in use.

See next page for a sample risk assessment.



Ph: 02 9415 8677 Email: info@riskassess.com.au Website: www.riskassess.com.au

RISK ASSESSMENT **Ecosolve High School Students**

Properties of carbon dioxide

Written by: Bill Wilkins, Mary Newt, Christina Lee **Commenced on:** 19 Sep 2022 **Expires:** 19 Dec 2023

Classes for which experiment is required

Teacher: Phillip Crisp (training code 1) **Year Group:** 10 Chemistry

Room	Period	Date
611	3	Fri 30/9/22

Items to be prepared by laboratory technician (training code 1)

10 g marble chips
100 mL 5M HCl
large test tube
100 mL beaker
100 mL limewater
wooden splints
matches

Procedure or reference, including variations

S&B p67
In addition, pour carbon dioxide from test tube into beaker to extinguish burning splint.

Equipment to be used

glass beaker, 200 mL or less

Potential hazards
Breakage of beaker. Cuts from chipped rims.

Standard handling procedures
Inspect and discard any chipped or cracked beakers, no matter how small the damage. Sweep up broken glass with brush and dustpan; do not use fingers.

large borosilicate glass test tube, ~150 mm x 25 mm (Pyrex test tube, ~150 mm x 25 mm)

Potential hazards
Breakage of test tubes. Cuts from chipped test-tube rims. More fragile than smaller test tubes. Large test tubes are preferred for exothermic reactions and for boiling, since material less likely to be ejected.

Standard handling procedures
Inspect and discard any damaged test tubes. Sweep up broken glass with brush and dustpan; do not use fingers. Do not insert finger in test tube, since it may become stuck and swell. Borosilicate test tubes are generally recommended if the contents are to be heated. Rimless borosilicate test tubes are known as "ignition tubes", but offer no advantage over tubes with rims for heating solids over a Bunsen flame.

wooden splint (splinter, taper)

Potential hazards
When lit, it acts as an ignition source; may cause burns. Possibility of splinters, especially if damaged.

Standard handling procedures
Extinguish wooden splint with water before disposal.

Chemicals to be used

calcium carbonate (calcite, chalk (rock), lime (limestone), limestone, marble chips) **$CaCO_3$**

CAS: 471-34-1

Class: nc PG: none Users: K-12 Training: 1-6

GHS data: Not classified as a hazardous chemical.

Potential hazards
Not toxic.

Standard handling procedures
Solubility ~0.6 mg/L at 20°C.

Disposal
May be placed in the garbage.

hydrochloric acid 3-8 M (10-25% wt/wt) **$HCl_{(aq)}$**

CAS: 7647-01-0

Class: nc PG: none Users: 7-12 Training: 1-5

GHS data:

WARNING

Causes serious eye irritation
Causes skin irritation
May cause respiratory irritation

Potential hazards
Irritates eyes, lungs and skin.

Standard handling procedures
Avoid inhalation of vapour or skin contact.

Disposal
Retain for collection by a waste service or <20 mL/day may be poured, with stirring, into 50 times the volume of water, then poured down the drain. Residues should be placed in an Acid waste container.

Chemicals to be produced

carbon dioxide, gas generated during experiment **CO_2**

CAS: 124-38-9

Class: 2.2 PG: none Users: K-12 Training: 1-6

GHS data: Not classified as a hazardous chemical.

Potential hazards
Harmless, in quantities generated during experiments. Toxic at high concentrations in air due to absorption through lungs into blood, lowering the pH.

Standard handling procedures
DO NOT GENERATE CARBON DIOXIDE IN A CLOSED CONTAINER SINCE THE CONTAINER MAY EXPLODE. Magnesium burns in carbon dioxide to form magnesium oxide and carbon.

Disposal
Gas may be released to the atmosphere, provided it is not in an enclosed space.

Knowledge

I/we have read and understood the potential hazards and standard handling procedures of all the equipment, chemicals and biological items, including living organisms.
I/we have read and understood the Safety Data Sheets for all hazardous chemicals used in the experiment.
I/we have copies of the Safety Data Sheets of all the hazardous chemicals available in or near the laboratory.

Agreement by student(s)

I/we, Bill Wilkins, Mary Newt, Christina Lee, agree to conduct this experiment safely in accordance with school rules and teacher instructions.

Risk assessment

I/we have considered the risks of:

fire or explosion	breakage of equipment	exposure to pathogens	waste disposal
chemicals in eyes	injuries from equipment	injuries from animals	improper labelling/storage
inhalation of gas/dust	rotating equipment	intense light/lasers	inappropriate behaviour
chemicals on skin	electrical shock	UV, IR, nuclear radiation	communication issues
ingestion of chemicals	vibration or noise	pressure inside equipment	allergies
runaway reaction	sharp objects	heavy lifting	special needs
heat or cold	falling or flying objects	slipping, tripping, falling	other risks

Assessment by Student(s)

I/we have assessed the risks associated with performing this experiment in the classroom on the basis of likelihood and consequences using the School's risk matrix, according to International Organization for Standardization Standard ISO 31000:2018.

I/we consider the inherent level of risk (risk level without control measures) to be:

Low risk **Medium risk** High risk Extreme risk

Control measures:

Always point test tube away from any person.
Add hydrochloric acid slowly and carefully to avoid vigorous reaction and projection of material from test tube.
Dip matches and tapers in water to ensure extinguished before disposal.
Additional measures: safety glasses, gloves

With the specified control measures in place, I/we have found that all the risks are "low risk". Risks will therefore be managed by routine procedures in the classroom, in combination with the specified control measures.

Certification by Teacher

I have assessed the risks associated with performing this experiment in the classroom on the basis of likelihood and consequences using the School's risk matrix, according to International Organization for Standardization Standard ISO 31000:2018. I confirm that the risk level and control measures entered by student(s) above are correct and appropriate.

Name: ..... **Signature:** ..... **Date:** .....

Certification by Laboratory Technician

I have assessed the risks associated with preparing the equipment, chemicals and and biological items, including living organisms, for this experiment and subsequently cleaning up after the experiment and disposing of wastes, on the basis of likelihood and consequences using the School's risk matrix, according to International Organization for Standardization Standard ISO 31000:2018.

I consider the inherent level of risk (risk level without control measures) to be:

Low risk Medium risk High risk Extreme risk

Risks will therefore be managed by routine procedures in the laboratory.

Name: ..... **Signature:** ..... **Date:** .....

Monitoring and review

This risk assessment will be monitored using comments below and will be reviewed within 15 months from the date of certification.

Attach further pages as required