

Lesson 1

Setting Up and Caring for Your Mushroom Kit

Lesson Summary

You're about to grow your very own fresh mushrooms in the classroom.

In this lesson, students will be introduced to the correct procedures for setting up and caring for their mushroom growing kit. They will learn how to prepare compost and casing soil, create the ideal growing environment, and maintain the kit through regular watering and observation. This activity builds foundational skills in following scientific instructions, hygiene, and daily care routines, all essential for successful mushroom growing.

Follow the steps below to set up and grow mushrooms with your students.

Important – Read This First

Before you begin, please take a moment to read the important information below — it will help you get the most out of your mushroom growing experience and ensure you're supported every step of the way.

We also invite you to join our **Mushrooms in Schools Facebook Group**, where teachers across the country share tips, photos, and troubleshooting advice throughout the program. It's the easiest way to stay connected and supported.

Join our Teachers Facebook Group:

<https://www.facebook.com/groups/1340113218298762>

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Please note that we aim to respond to your email that day. This email address isn't responsive on the weekends. Please be patient with our team.

Watch the instructional video before beginning:

[\[VIDEO LINK\]](#)

What's In Your Kit

- 1 x compost block (already colonised with mushroom mycelium) enclosed in plastic.
- 1 x bag of casing soil

What you will need

- 0.5 litre spray bottle
- Small watering can with a rose ([example from Bunnings](#))
- Disposable nitrile plastic gloves
- A clean 250 mL measuring cup (metric cup)
- A clean 10 litre mixing bucket
- Stanley knife or craft blade (*only to be used by adults/ teachers*)
- Popsicle stick marked with a line 50 mm from one end, or a ruler
- A touch of patience and a lot of excitement!

Optional

- Circular or digital thermometer capable of reading between 15 and 25 °C
- Scale capable of measuring 50 grams to 1 kg or more

Day 1 - Let's set up your kit!

Step 1: Select the Right Location

Place your mushroom kit in a well-ventilated, room-temperature area (18–22°C). Do not place it in direct sunlight or near a heater, air conditioner, or drafty window.

Step 2. Prepare your Watering Can

Add 375 mL of clean tap water to the watering can using the measuring cup (1.5 cups)

Step 3: Unbox Your Kit

1. Remove the box lid from the box, you will need to carefully cut through the packaging tape used to secure the lid using a Stanley knife or craft blade.



Take care not to cut into the box itself when removing the packaging tape.

Keep the lid — it will be used later.

2. Remove the small bag of casing soil and set it aside.
3. Unwrap the plastic from the top of the compost block and pull the plastic down over the sides of the box

Step 4: Prepare for Casing

1. **PLEASE NOTE: Before handling the compost or casing soil, students and teachers must wear gloves.**

Using your fingers, gently tease up compost from the surface. If you have a scale, weigh out 60 grams of compost in the measuring cup. If you don't have a scale, simply transfer some compost to the measuring cup, making sure it is heaped up. Set the cup aside.

2. Gently press the surface of the compost using your hand. This promotes an even mycelial response when casing is applied.
3. Lightly mist the compost surface using the spray bottle filled with clean tap water.

Step 5: Prepare the Casing Soil

1. Wash and clean your bucket using hot water and dishwashing detergent. Rinse thoroughly with cold tap water three times.
2. Empty half the bag of casing soil into the bucket.
3. Add half the reserved 1 cup of compost and mix gently to incorporate.
4. Add the remaining casing soil and half cup of compost, mix again, breaking up any large clumps with your gloved hands.
5. Slowly add 500ml of clean tap water. Mix gently until the material holds together in thumb-sized clumps (aggregates).

Step 6: Apply the Casing Layer

1. Rest the popsicle stick on the inside of the box, with the tip touching the compost surface. The 50mm line is to show you how much casing soil to add. You could also use a ruler – just ensure it is washed afterwards
2. Sprinkle a light shallow layer of casing over the compost surface (the entire box), then gently fill in to achieve an even 50mm depth across the entire surface until it looks like the image below. Take care not to compress the casing, as this will make it harder for the mushrooms to grow



3. Discard any leftover casing soil into your school's garden or compost area — it is plant-safe and nutrient-rich and your garden will love you for it.



Step 7: Watering the Casing Layer

Using the watering can with rose attached, gently water on 375 mL of clean tap water evenly over the entire casing surface.

Step 8: Loosely Replace the Lid and Leave the Box in a Suitable Location

Growing your Mushrooms!

If possible, it's best to start your kit early in the week. Monday is best, as the exciting part when the mushrooms are really growing and getting ready to be picked will happen about 14 days after the casing is applied, and your students would be upset if that was over a weekend.

PLEASE NOTE: *If your kit was delivered on a Tuesday, it is fine to start the program the following Monday, just leave the box as is and only open it when you are ready to start.*



Step 1: Let the Mycelium Grow into the Casing

1. On Day 2 - use the clean measuring cup to add 500 mL (2 cups) of clean tap water to the watering can. Take off the lid and gently water on 500 ml of tap water evenly over the entire casing layer. Replace the lid after watering.
2. On Day 3, water a further 500 ml of tap water evenly over the entire casing surface and replace the lid.
3. By now, you should start to see small wisps of mycelium on the odd piece of compost on the surface of the casing.

Step 2: Pinning and Fruiting

1. On Day 4 - it's time to start the pinning process. Remove the box lid and set it aside. Give the surface a very light spritz with tap water in a spray bottle. If possible, you should find a cooler location to leave the box with the lid off. Between 16 and 18 °C is ideal, below 16 °C is too cold. By exposing the box to a cooler temperature, you are encouraging the pins to form. You can check the compost temperature with a thermometer – if it drops below 20 °C, you will get a better result.
2. On Day 5 – check the casing soil to see if it is still moist. Spritz if required and leave in a cool place with the lid off over the weekend (Days 6 and 7)
3. On Days 8 through 12: The box can be brought in from the cooler location. Make sure the casing soil is kept moist by spritzing lightly once or twice per day. Stop spritzing over mushrooms once they are bigger than your little fingernail.

What you will see:

On Day 8: Knots of mycelium are starting to form into small pins



Mini Mushroom Growers



After Day 10: White pinheads (baby mushrooms) will form across the casing surface. Once pinning starts, mushrooms will grow rapidly — often doubling in size every 24 hours!)



On Days 13-14: leave the box with lid off in the classroom over the weekend.



Step 3: Harvesting the First Flush

1. It's best to pick **button-sized mushrooms** during the first round of harvesting (called the *first flush*). Look for mushrooms that are a little bigger than a 20-cent coin (about 35mm wide) – like those marked with an “X” in the photo below.



Mini Mushroom Growers



2. When you're ready to pick, put on your gloves. Hold the top (cap) of the mushroom gently and **twist it as you lift it out**. Don't pull straight up, this can damage the mushroom bed underneath
3. The mushrooms will be ready to pick over **three or four days**, so keep checking each day. On the **last day**, make sure you pick **all the mushrooms** - even the tiny ones. This helps your next crop to grow properly.

Step 4: Second Flush Preparation - Here Come More Mushrooms!

1. After you've finished picking all the mushrooms from your first harvest (called a *flush*), it's time to give your kit a good drink and prepare for a second flush.
 - a. **First, use the watering can to gently pour 500 mL of water over the surface.**
 - b. A few hours later, do it again — another 500 mL.
2. Now cover the top of the box lightly with the **lid**, this helps keep the moisture in. If you've lost the lid, don't worry - you can cover the box with newspaper
3. **The next day**, remove the lid and discard. (you won't need it again). Give the kit another 500ml of water. A few hours later, check the surface:
 - a. If the water has soaked in, you can add another 500 mL
 - b. If it's still wet, wait and add the last 500 mL of water on the next day
4. **Gently mist the surface with your spray bottle each day until new pins (tiny mushrooms) appear. Stop spritzing over mushrooms** once they are bigger than your little fingernail.



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5. This time, you can pick some mushrooms while they're still buttons, or let some grow into cups and **larger, flat mushrooms**. Let your class experiment to compare the different growth stages.



BUTTON MUSHROOMS



WHITE MUSHROOM CUPS



FLAT MUSHROOMS

Step 5: Third Flush – Final Harvest

1. Once the second flush of mushrooms has been picked (including the tiny ones), your kit might grow **one last time**. This is called the *third flush*.
 - a. The kit will require one watering with 500 mL
 - b. Over the next few days, spritz gently if the surface looks dry.
 - c. Stop spritzing once you see new mushroom pins.
2. This final flush will grow more slowly and have fewer mushrooms — but it's still exciting to watch!

*When you've harvested the last of your mushrooms, the growing kit has done its job! You can **compost the kit contents** in your school garden or compost bin, or add it to a green waste bin.*

Questions You Might Have During the Growing Process

Q: How do we water the mushroom growing kit?

A: Use a **spray bottle** to gently mist the surface every day. When the instructions say it's time for more water, use a **small watering can** with a soft spout (called a rose) to pour the water gently.

Q: Can we eat the mushrooms we grow?

A: Yes! They're real mushrooms and safe to eat. Just make sure everyone **washes their hands before and after** picking them. Mushrooms can be stored in a brown paper bag in the fridge. They will stay fresh for a week if handled gently to avoid bruising.

Q: What if no mushrooms grow?

A: Sometimes mushrooms take a little extra care. Try moving the kit to a **cooler spot** and give the soil a few gentle sprays of water. You can also try **adding 300 mL of fresh water** using the watering can. Still not sure? Ask for help in our **Facebook group** or email us at **schools@amga.asn.au**.

Q: What if we see green mould?

A: Don't worry — that can happen sometimes. To treat the mould and stop it from spreading, dip a brush in a little **cooking oil (like canola oil)** and dab it onto the green spot. You can also brush some oil along the edge of the box to help keep away mushroom flies.

Q: What's the difference between a spritz and a spray?

A: A **spritz** is a light mist, like when you gently squeeze the spray bottle once or twice from far away, just enough to make the surface damp, not wet. A **spray** usually covers a bigger area with more water. For your mushroom growing kit, we want **gentle spritzing**, not soaking!