



Youth STEMM Award Participants' handbook

A Message from Prof. Ben Garrod!



Welcome to the Youth STEMM Award! Whether you're starting with Bronze, progressing to Silver or aiming for Gold, this is your launchpad into the exciting and dynamic world of science, technology, engineering, mathematics and medicine. Each level presents new challenges to help you explore STEMM subjects, gain hands-on experience and develop lifelong skills.

Your time with the Youth STEMM Award will boost your confidence and help prepare you for your next steps - whether that's further study, higher education, training, or simply to develop a stronger connection to the world around you. Completing the Award not only develops valuable skills but also strengthens applications for your future educational and employment journey.

Embrace the road ahead – your curiosity has the power to shape both your future and the world!

Ben Garrod



Professor Ben Garrod

YSA Ambassador, evolutionary biologist at the University of East Anglia, conservationist, broadcaster and author

STEMM stands for:



Science



Technology



Engineering



Maths



Medicine

About the Youth STEMM Award

The Youth STEMM Award (YSA) helps young people explore Science, Technology, Engineering, Maths and Medicine beyond their regular lessons.

You'll choose activities across four strands:

- **Inspiring the Next Generation**
- **Engaging the Public**
- **Developing Skills and Knowledge**
- **Shaping Your Future**

Log each activity in your e-portfolio to track your hours, reflect on what you have learned and build a lasting record of your achievements.



Complete your Award to receive a medal, certificate and digital badge. You can also include the Youth STEMM Award in applications, on your CV and in your UCAS personal statement.



- **Choose Your Activities:** Explore STEMM at school, at home, online or in your community.
- **Log and Reflect:** Record what you did, the time spent and what you learned.
- **Track Your Progress:** See your hours and achievements build in your e-portfolio.
- **Complete and Celebrate:** Earn your medal, certificate and digital badge.

Skills you will develop

By completing activities in these skill areas you will set yourself up for success in your future STEMM career:



**Inspiring
the next
generation**

Inspiring the Next Generation:

Become a role model for younger peers, building leadership skills and confidence.



**Engaging
the public**

Engaging the Public:

Enhance communication skills as you share STEMM knowledge with family, friends and the wider community.



**Developing
your skills and
knowledge**

Developing Skills and Knowledge:

Dive deeper into STEMM topics beyond your curriculum, following your interests.



**Shaping
your future**

Shaping Your Future:

Explore STEMM careers, learn about future pathways, and expand your career options.

Top Tip:

These are the four YSA skill strands. You will need to do activities in each area to complete your Award

Achieving your Youth STEMM Award



To complete your Award, you'll need to log activities across all four strands and meet the requirements for your chosen level:

- Bronze: 45 hours
- Silver: 90 hours
- Gold: 150 hours

Each level also has additional requirements. Check your e-portfolio regularly and use the table on the next page to make sure you are on track.

Top Tip:

Activities you already do outside regular lessons — such as after-school clubs — may count towards your Award.

Planning your activities

Before starting an activity, think about which strand and areas of STEMM it covers. Activities can take place at school, at home, online or in your community — including during school holidays.

Every activity must be assessed by an adult who can confirm that you took part. This will usually be your Coordinator, but another adult involved in the activity, such as a work-experience host, can also assess it. Ask your Coordinator if you are unsure whether an activity or Assessor is suitable.

Top Tip:

Log activities regularly to track your progress and spot any requirements you still need to meet.

Level-specific requirements

Level	Total Hours	Inspiring the next Generation	Engaging the Public	Developing Skills and Knowledge	Shaping Your Future	Additional Requirements
 Bronze award	45 Hours	10 Hours	10 Hours	10 Hours	15 Hours	Include at least one activity in each STEM area
 Silver award	90 Hours	20 Hours	20 Hours	20 Hours	30 Hours	Cover all five STEM areas in each strand
 Gold award	150 Hours	30 Hours	30 Hours	45 Hours	45 Hours	In addition to Silver, focus on one area in-depth with extensive projects

More detail on each of the strand requirements can be found in the following pages of this handbook, along with some suggested activities. It's also on the website: www.ysawards.co.uk.

What counts as an activity?

When selecting activities, make sure they meet these criteria:

- **STEMM Focus:** Involves at least one area of STEMM
- **Outside Regular Lessons:** Not part of normal classes or homework
- **Strand Alignment:** Fits into one of the YSA strands

You cannot count time spent in regular lessons or on homework, but other school activities like after-school clubs may be eligible.

Yes (if STEMM-related):

- ✓ *After-school clubs, open evenings and public events*
- ✓ *School-organised trips*
- ✓ *Extra study in your spare time to learn more about a topic that you were introduced to at school*

Does NOT Count:

- ✗ *Work carried out in normal lessons*
- ✗ *Homework*
- ✗ *Exam-specific revision of topics learnt in school*
- ✗ *Activities that don't involve STEMM*

When deciding which strand your activity fits into, remember you can split the time, but you cannot count it twice!

Example activity:





Inspiring the Next Generation

In this strand, you'll inspire younger students or peers by sharing your interest in STEMM. You'll develop leadership and confidence as you become a role model, either through direct mentorship or by creating resources.

Level	Minimum Hours	Additional Requirements
Bronze	10 Hours	Work with at least two different groups of students. They may be the same age as you or younger, but at least one group should be from outside your school.
Silver	20 Hours	In addition to Bronze, develop and deliver your own activity idea for younger students
Gold	30 Hours	In addition to Silver, mentor at least two younger students and teach them STEMM content

Top Tip:

You can work on your own or as part of a team

Example activities:

- **Bronze: Assist in Leading a STEMM Workshop** – Help your teacher lead a hands-on STEMM session for younger students, such as a simple science experiment or coding basics.
- **Silver: Develop a New STEMM Activity** – Create an interactive activity like a scavenger hunt or quiz on a STEMM topic, and lead it with younger students or at a school event or community youth group session.
- **Gold: Mentor Younger Students on a STEMM Project** – Mentor at least two younger students over multiple sessions, guiding them through a small STEMM project, such as building a model or researching a science topic.



Engaging the Public

In this strand, you'll develop your communication skills by helping others understand STEMM topics. Your audience can include family, friends, and the wider community and may be the same age, younger, or older.

Level	Minimum Hours	Additional Requirements
Bronze	10 Hours	Be involved in at least two different events or activities to engage the public in different settings. Demonstrate different formats, for example posters, presentations or newsletters.
Silver	20 Hours	In addition to Bronze, develop and deliver a STEMM activity at a public event, such as a science festival or open day.
Gold	30 Hours	In addition to Silver, participate in a debate or conference presentation and create both a poster and a written resource, such as a blog, webpage or school news feature.

Example activities:

- **Bronze: Create a STEMM Poster** – Design a poster on a science topic and display it at a school or community location to educate others about STEMM.
- **Silver: Host a Science Talk or Debate** – Organise a science talk or debate for a group at school, and use slides or videos to enhance your presentation.
- **Gold: Develop a Public Engagement Project** – Create and run a larger event, like a science fair booth or community workshop, to educate a broad audience on a STEMM topic.

Top Tip:

Make STEMM memorable with clear explanations, visuals and hands-on activities.



Developing Skills and Knowledge

In this strand, you'll expand your STEM knowledge by exploring topics that go beyond the regular curriculum. This is your chance to pursue areas of personal interest and deepen your knowledge.

Level	Minimum Hours	Additional Requirements
Bronze	10 Hours	Complete activities that explore STEM topics outside of regular lessons. Attend two STEM-related events. Demonstrate progression in a skill or knowledge area, recording evidence to show development
Silver	20 Hours	In addition to Bronze, attend events at multiple STEM venues, such as museums, science centres or webinars, and produce a research project.
Gold	45 Hours	In addition to Silver, complete an in-depth study such as an EPQ. Be working towards a Level 3 STEM qualification

Example activities:

Top Tip:

Activities can be virtual or in person

- **Bronze: Attend a STEM Club**
 - Join an after-school club focused on a STEM topic, and participate in discussions or hands-on activities.
- **Silver: Visit a STEM Venue or Event** – Attend a science museum, public lecture, or webinar to learn more about an area of interest.
- **Gold: Complete a Research Project** – Undertake an independent research project, such as an EPQ, on a STEM topic that interests you, and present your findings.



Shaping Your Future

In this strand, you'll explore STEMM careers, qualifications and training routes to help you make informed decisions about your future.

Work-experience hours are limited to ensure you complete a varied range of activities. Careers guidance and personal development, such as interview practice, can also count.

Level	Minimum Hours	Additional Requirements
Bronze	15 Hours	Maximum 10 hours from one work experience placement. Complete at least 8 hours exploring careers across more than one STEMM area.
Silver	30 Hours	Maximum 20 hours from one placement. Complete at least 15 hours exploring STEMM careers and research at least three different roles across more than one STEMM area.
Gold	45 Hours	Maximum 25 hours from one placement. Complete at least 25 hours exploring STEMM careers, investigate one field in depth and interview a professional.

Example activities:

➤ **Bronze: Attend a Careers Talk** – Go to a STEMM careers talk or open day, and research different career paths within the sector.

➤ **Silver: Shadow a Professional** – Arrange a work-shadowing experience in a STEMM role, learning about day-to-day tasks and career progression.

➤ **Gold: Undertake Extended Work Experience** – Complete a longer work experience placement or a series of shadowing sessions in a STEMM career field of interest.

Top Tip:

Take notes during career events or work experiences to reflect on what you learned and how it aligns with your goals

Who is supporting you?

Your Coordinator will support you throughout your Youth STEMM Award. They can help you choose suitable activities, use your e-portfolio and understand the Award requirements. They will also review your submissions and track your progress.

Who assesses your activities?

Every activity must be signed off by an adult who can confirm that you took part. For activities completed at school or independently, your registered Coordinator will usually assess them. If another adult supervised the activity—such as a work-experience host, activity leader or teacher—you can ask them instead.

Top Tip:

Unsure whether an activity or Assessor is suitable? Ask your Coordinator before submitting it.

When submitting an activity, either select your Coordinator as the Assessor or provide the other adult's name and email address. Always ask permission before sharing someone's details.

Where can you find support?

- **At school or college:** Ask staff about activities, resources and opportunities that could count towards your Award.
- **At home:** Family members may help you find activities or opportunities to share your STEMM knowledge.
- **Online:** Follow Youth STEMM Award and subscribe to the newsletter for ideas, opportunities and inspiration.

Setting up your e-portfolio

Your e-portfolio records your activities, tracks your progress and creates a downloadable record of your achievements.

Step 1: Activate your account

- Look out for an activation email from YSA. Follow the link to create your password. If it does not arrive, check your junk or spam folder.

Step 2: Complete two-factor authentication

- When prompted, follow the on-screen instructions to verify your identity. This extra security step helps protect your account.

Step 3: Complete your profile

- Add the requested information, including your school year and postcode, and update it if anything changes.



YSA e-portfolio

Activate Account

E-Mail Address
rich.nicolson@*****

Choose a password

Password

Confirm Password

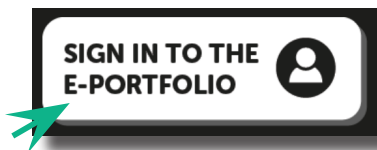
Activate account

Top Tip:

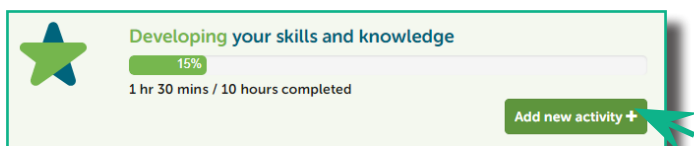
Log in regularly and keep your profile up to date.

How to submit an activity

- 1 Scan the QR code or visit www.ysawards.co.uk to log in



- 2 Choose the strand that best matches the activity and click 'add new activity'.



- 3

A form for submitting an activity. It includes fields for 'Activity title' (Watching the Royal Institution Christmas lectures), 'Provider' (Undertaken at home), 'Activity Description' (I watched a Royal Institution Christmas Lecture exploring how scientists use experiments and evidence to answer complex questions. I learned how scientific ideas can be tested through carefully designed demonstrations and clearly explained to a public audience. I was particularly interested in how the presenter made a difficult topic understandable and entertaining. It inspired me to find out more about the subject and watch another lecture in the series.), 'Hours' (01:00), and 'Date undertaken' (January 2026).

Activity title

Watching the Royal Institution Christmas lectures

Provider

Undertaken at home

Activity Description

I watched a Royal Institution Christmas Lecture exploring how scientists use experiments and evidence to answer complex questions. I learned how scientific ideas can be tested through carefully designed demonstrations and clearly explained to a public audience. I was particularly interested in how the presenter made a difficult topic understandable and entertaining. It inspired me to find out more about the subject and watch another lecture in the series.

Hours

01:00

Date undertaken

< January 2026 >

Su Mo Tu We Th Fr Sa

Enter the details about your activity. Include a clear title and description, the time spent to the nearest 15 minutes, the date, and all the relevant STEMM areas. This helps your Coordinator understand exactly what you did.

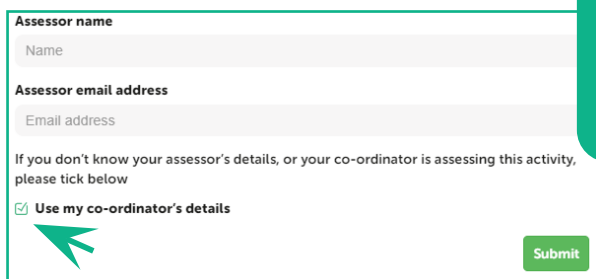
Save your activity as a draft to continue later, or select 'submit' when you are happy that all the information is complete.

4

Provide the name and email address of a trusted adult who can confirm your participation, such as a work experience host. They will receive an automated email asking them to verify the activity and may add comments. Always ask permission before sharing their details. For activities completed at home or school, select 'use my Coordinator's details'.

Top Tip:

You can only include activities that you have taken part in since you registered for Youth STEMM Award.



Assessor name
Name

Assessor email address
Email address

If you don't know your assessor's details, or your co-ordinator is assessing this activity, please tick below

☒ Use my co-ordinator's details

Submit

Top Tip:

If you tick the box to use your YSA Coordinator's details you **do not** also have to provide their details!

Activity submission checklist:

Activity title: Give the activity a clear, descriptive title, such as 'Attended a chemistry lecture at the John Innes Centre' or 'Helped my younger sister with her maths homework'. Ask yourself: would someone reading the title understand what the activity involved?

Provider: Select the organisation that provided the activity or choose 'Undertaken at home'. If the provider is not listed, select 'Other' and enter its name. For an activity completed at school, select your school and explain how the activity took place outside regular lessons.

Hours: Only include time that you spent learning and participating in STEMM during the activity. Don't count breaks or travel time. You can only add time in 15 minute blocks.

STEMM Discipline: Tick all the areas you think apply to your activity.

Evidence: Including evidence helps your Coordinator see what you did and moderate the activity. Evidence could include resources you created, screenshots or photographs. It can also help you reflect on the activity in future.

Top Tip:

Watch the e-portfolio explainer video on YouTube!



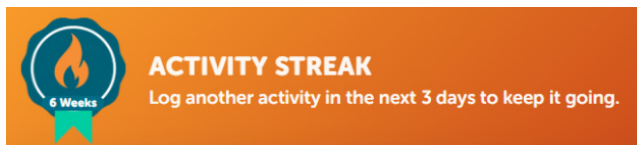
How to write a good description

A description is where all the action happens! This is your opportunity to showcase your activity and reflect on what you learned. Submissions may be returned if the description does not contain enough information, so include at least three complete sentences. You could answer the following questions:

- What was the activity?
- What did you learn from it?
- What interested you the most?
- Was there anything that surprised you about what you did or learned?
- Has it inspired you to do anything else or explore something further?

Keep up your activity streak

Your activity streak encourages you to make regular progress. Log at least one activity each week to keep your streak going. The banner shows your current streak and how many days you have left to add another activity.



Check the Opportunities section regularly for activity ideas that could count towards your Award.

Download your portfolio at any time to keep a printable record of your achievements.



Export your ePortfolio as a printable PDF file [↓](#)

Completing or upgrading your Award

Once you have logged enough hours and met all the requirements, submit your e-portfolio to your Coordinator. They will review your activities before sending it to YSA HQ for final moderation.

Want to continue to the next level? Request an upgrade and your approved hours will carry forward.

When you complete your Award, you'll receive a medal and certificate. Look out for an email explaining how to claim your digital badge!



Inspiring ambassadors

Our ambassadors are passionate STEMM professionals who embody the values of the Youth STEMM Award. Through sharing their journeys, they show how curiosity and determination can lead to remarkable achievements—and inspire the next generation to follow in their footsteps.



Professor Ben Garrod

Evolutionary biologist,
conservationist,
broadcaster and author

  @Ben_garrod



Dr Marcia Philbin

Chief Executive of the Faculty
of Pharmaceutical Medicine



Mark Thompson

Astronomer, author and broadcaster

  @Astronomer_Mark

“ If
something
like the YSA had
been around when
I was at school, I
honestly think I'd have
explored my passion
for science
sooner. ”

Maddie Moate

YouTube filmmaker and
BAFTA-winning presenter

  @maddiemoate



Dr Nira Chamberlain OBE

Mathematical modeller

 @ch_nira



Lizzie Daly

Biologist, naturalist and
wildlife presenter

 @LizzieDalyWild

Our key partners

The Youth STEMM Award is proud to work with a number of valued organisations. Listed here are our main sponsoring partners. We are grateful for their contributions, which enable us to deliver the Award to schools and young people across the UK and beyond.



University of East Anglia

A UK top 25 university and part of one of the largest scientific communities in Europe



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John Innes Centre

Unlocking Nature's Diversity

A world-leading international centre of excellence in plant science and microbiology



jic.ac.uk



A world-class research institution, focusing on basic cell and molecular biology with an emphasis on healthy ageing through the human lifecycle



babraham.ac.uk



A charity that has invested over £190m in London and Essex to inspire and motivate young people and recognise them for their achievements



jackpetcheyfoundation.org.uk



Connect with us:

 HQ@ysawards.co.uk

 ysawards.co.uk

 [youthstemmaward](https://www.instagram.com/youthstemmaward)



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