



Candidate Pack for Teacher of Biology



James Allen's Girls'

JAGS has been inspiring and educating pupils for over 270 years. It is the oldest girls' independent school in London. While we are proud of our history - it's made us who we are - we are very much a school of the present and the future. We celebrate the best of the old while embracing the latest innovations and technology.



Our day school pupils are drawn from a dynamic variety of cultural, social and economic backgrounds, with 50 languages spoken at home. We currently have 126 pupils on our own bursaries, with 51 of them on free places and an average of 89% fee subsidy paid. Diversity is our strength but we share a common purpose: to help all our pupils fulfil their potential. We know we are lucky and that we gain from sharing what we have. 'Good Neighbours' has been our policy for many years. We look outwards and draw people in. We are part of the world around us.



James Allen's Girls' School

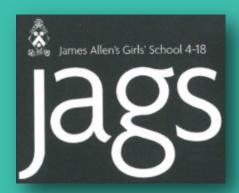
In a changing educational world, my core values remain intact. As an Oxford graduate, and student of literature, I want pupils to love learning for its own sake and to strive for excellence.

But true education always comes back to people. To supporting the young on individual journeys so they are ready to lead purposeful, happy adult lives. As soon as I set foot in JAGS, I knew that this was at the heart of the school's ethos too. Known for its academic excellence, JAGS is so much more. It is a school with heart and conscience and one which reaches out beyond its own community.

I also believe firmly that schools have responsibility for the whole person. Sport, arts and leadership are part of that - but the less measurable qualities of social responsibility and empathy are just as important.

Sally-Anne Huang









Working @ JAGS

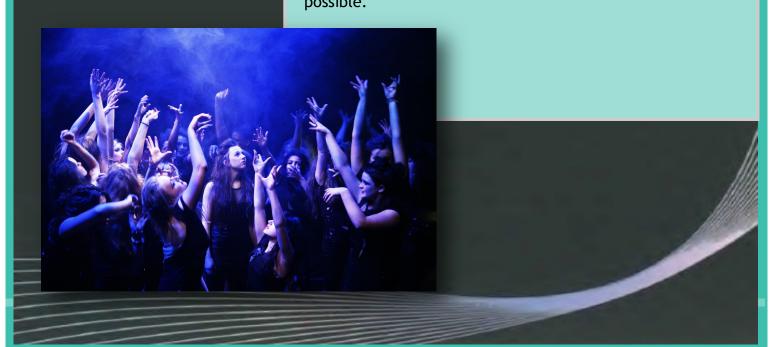
Working at JAGS is more than just about working. JAGS is a community and a family that strives to create a warm and supportive environment for both the girls that come to learn here, but also for the staff that come to work here.



From your first day at JAGS you will have access to some of the best facilities in the country and will be encouraged to take part in the many activities here.

JAGS works hard to attract the best staff and therefore the benefit package at JAGS is very generous. We have our own pay scale which is above the national average and we also offer all staff a discount on school fees. You will have access to our multi purpose sports centre which includes tennis courts, a 25m swimming pool, spin studio and a rock climbing centre. You will receive free lunches as well as free parking and free access to the Dulwich Picture Gallery.

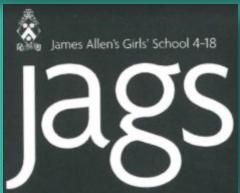
Working at JAGS is a great opportunity for anyone, whether a teacher, a gardener or an IT technician and we work with all our staff to offer development opportunities wherever possible.



Teacher of Biology

The post holder should have very good subject knowledge and show enthusiasm for Biology. They will have knowledge as well as good understanding of effective teaching and learning styles. They will enthuse students with extensive use of practical work and be well-organised in monitoring, assessment, recording and reporting of pupils' progress.







Person Specification



Essential

- A good degree in science with substantial Biology content, preferably with PGCE
- Awareness of the statutory requirements concerning Equal Opportunities, LDD & SEND, Child Protection and particularly of Health and Safety in science is essential.
- To be able to promote the school's aims positively.
- To use effective strategies to monitor pupils' motivation and morale.
- To be capable to develop good personal relationships within a team.
- ICT literate.
- To be able to create a happy, challenging and effective learning environment in lessons.
- To be responsible of the practical aspects of the courses and be able to include relevant safe class experiments and demonstrations.
- The successful candidate should be enthusiastic and approachable.
- Empathy and patience are important personal characteristics as well as a committed, well organized and resourceful approach and an ability to meet deadlines.

Desirable

- A teacher with experience of teaching Biology from Year 7 to A level, particularly to academically able students.
- Knowledge of National Curriculum requirements at all Key Stages.
- Evidence of commitment to further professional development.
- Enthusiasm to develop own subject knowledge.

Biology Department

A friendly department, Biology consists of five full time and three part-time teaching staff. There are two part time technicians, and a gardener for the historic Botany Gardens and Copse.

There are five, fully equipped specialist laboratories; three have been refurbished recently and are equipped with network points at each workspace for pupils to work individually on department laptops. All labs have Smart boards and there are visualisers, microscope cameras and other ICT facilities available for use in teaching.

The department has a main prep room upstairs and one serving Lab 13, on the ground floor. Biology staff also have the use of a resource room within which is a range of reference books, apparatus, past papers and other resources. Networked printers are available around the department and the science resources room photocopier is also connected for staff use. The department is well-resourced with equipment including wireless data loggers, digital colorimeters and equipment to serve the teaching of all areas of Biology.

We are lucky to have the use of extensive grounds including the Botany Gardens with its 3 ponds and a small woodland for use in teaching ecology. These areas are also used by a Horticulture Club which is run as activity slots for pupils in Years 7 and 8. They carry out activities such as pond dipping, nature trails, growing vegetables and monitoring seasons and wildlife.

There is a small wooded area, the copse, used for teaching and with pupils from the Pre-prep. Other schools from the area are periodically invited to take part in workshops and the Botany Gardens are occasionally opened to the public. The Botany Gardens manager coordinates use of the Gardens as well as maintaining them.

A tropical fish aquarium lends a 'biological' feel to the department. Together, the gardens and aquarium help to provide a calm and relaxing environment for the whole school.







In Years 7 and 8, students have 2 periods per week of biology and are taught by specialists. In Year 9 they increase to 3 periods per week. Schemes of work are written in house and pupils use the Longman Biology 11-14 text in years 7+8.

In Year 9, teaching of the AQA GCSE in Biology specification begins. At the end of year 10, pupils elect whether to sit separate sciences or the double award. In Year 10 girls are taught Biology for 3 periods per week and in Year 11 for 4 periods. All teaching at Key Stage 4 is by subject specialists.



A level Biology is a popular choice at JAGS with a good number of pupils going on to study related subjects. Each year around 10% of JAGS pupils go on to study Medicine and a similar number other subjects in Biology or related subjects.

In Years 12 and 13, girls will follow the AQA 7401/7402 A level course.

The AS and A level are co-teachable with the majority of pupils expected to continue to full A level. There are 8 lessons taught in year 12 and 9 in year 13. Each Year 12 and Year 13 group is taught by two members of staff (designated Teacher 1 and Teacher 2 in the schemes of work).

A variety of teaching methods are employed and these are reflected in the schemes of work. Methods may include a lecture style, appropriate for Sixth Form, guided discussions, outline plans from which pupils construct their own notes and practical work; new schemes have an increased emphasis on "How Science Works".

Use of ICT is encouraged and the department has created an extensive library of digital resources to that end; many of these are made available through the biology area of the network in order that some excellent resources can be used throughout the department. Shared resources and fresh teaching ideas are regularly added to the network and hyperlinks are added to schemes of work, so that they are immediately available for all staff. Increased ICT provision in the department has led to more use of it in teaching; as a result a high proportion of lessons are supported with high quality visual aids including photo and electron micrographs to help understanding. All videos used in teaching are available on the network and many are hyperlinked on the schemes of work.

Pupils can work individually on laptops when required. Appropriate activities include writing up, pooling results on a spreadsheet, research work and so on. Suggestions are made in schemes of work and laptops are requested through the prep room.

Practical work is done whenever a topic allows and every girl is expected to have hands-on experience of drawing, dissection, experimentation, measuring and comparing, with a minimum of teacher demonstrations. The department has a bank of risk assessed experiments to which every member of staff is encouraged to contribute. New experiments are undertaken only after a risk assessment has been done. Written risk assessments are completed with practical orders; see safety policy for further details.



Class discussion is a key feature of lessons at JAGS and allow our particularly able pupils to be stretched beyond the requirements of the course in every year group. Pupils are encouraged to ask pertinent questions and frequently bring ideas to lessons from their own reading or from watching documentaries.

The department runs seminars for pupils that require support and all teachers make themselves available for help through the 'office hours' rotation. Pupils are encouraged to seek help outside class time should they require it. All teachers are available during the week and routinely see pupils during rec or lunchtime.



Resources including past papers and mark schemes are made available to pupils via the pupil area of the school intranet.

As well as displaying pupil work, a current affairs noticeboard is used to display news articles relating to current affairs in biology.

All teaching staff help to deliver lunchtime seminars each year. These are provided to help Pupils in Y12 and 13 preparing for the BMAT and UKCAT examinations and Y11, 12 and 13 pupils preparing for examinations and requiring extra help to achieve their potential.

Schemes of work provide guidance for lesson content and teachers are encouraged to assess pupil ability and evaluate and adapt planning to cater for them. All schemes encourage extension work to stretch our most able pupils. Revision booklets and other support materials are made available to pupils preparing for exams.

Pupils are actively encouraged to read around the subject. The school library has an excellent range of Biology books suitable for pupils throughout the school. When the subject matter lends itself, younger pupils are periodically asked to design posters, requiring them to read about a particular topic. Older pupils might be directed towards specific reading or to research a particular topic.

At 'A' level reading around the subject is particularly important. The department subscribes to Biological Sciences Review and this is also offered to sixth form students at a discounted price; department copies are placed in the magazine rack by the aquarium so that they are available to pupils. Teaching notes for each issue are available. Periodically, lectures in London are advertised to the sixth form. Pupils in the sixth form are provided with a course text for the A Level. They are also provided with Biological Sciences 1+2 and Practical Skills in Biology; these books allow them to read well beyond the specification. Tasks requiring background research are set in the sixth form and these may include a requirement to present a topic to peers in class.

We run a number of clubs and societies. The Biology society runs weekly and is supported by members of the department. All girls are welcome to attend talks, carry out dissections and other practical work and learn about areas of the subject beyond the specification. *Horticulture Club*- Horticulture club runs twice weekly for pupils in Year 7 and 8 that have a particular interest in the subject. The clubs are operated by the Botany Gardens Manager and most activities are conducted in the Botany Gardens. The pupils are also encouraged to help look after the department fish.

JAGS Medical Society- The department runs a sixth form Medical Society in order to support the relatively large group of pupils that go on to study medicine each year. The society aims to:

- Exchange of information related to a shared interest in medicine
- Distribute of information that comes into school that might help with applications
- A forum for help in preparing for BMAT and UKCAT examinations and interviews
- To host talks of interest to the members including talks related to applications, personal statements and interviews

Full use is made of facilities in London with recent trips to the Natural History Museum and Kew Gardens. A number of talks and demonstrations are arranged throughout the year and for all year groups, including for the Medical Society.

The department organises a number of trips and events annually including:

- Botany Gardens Open Day
- Natural History Museum for year 9
- Invertebrates display from "The Bugman" for Year 7
- Bird of Prey demonstration for Year 10
- Medical society talks
- Trip to Down House
- A level field trip