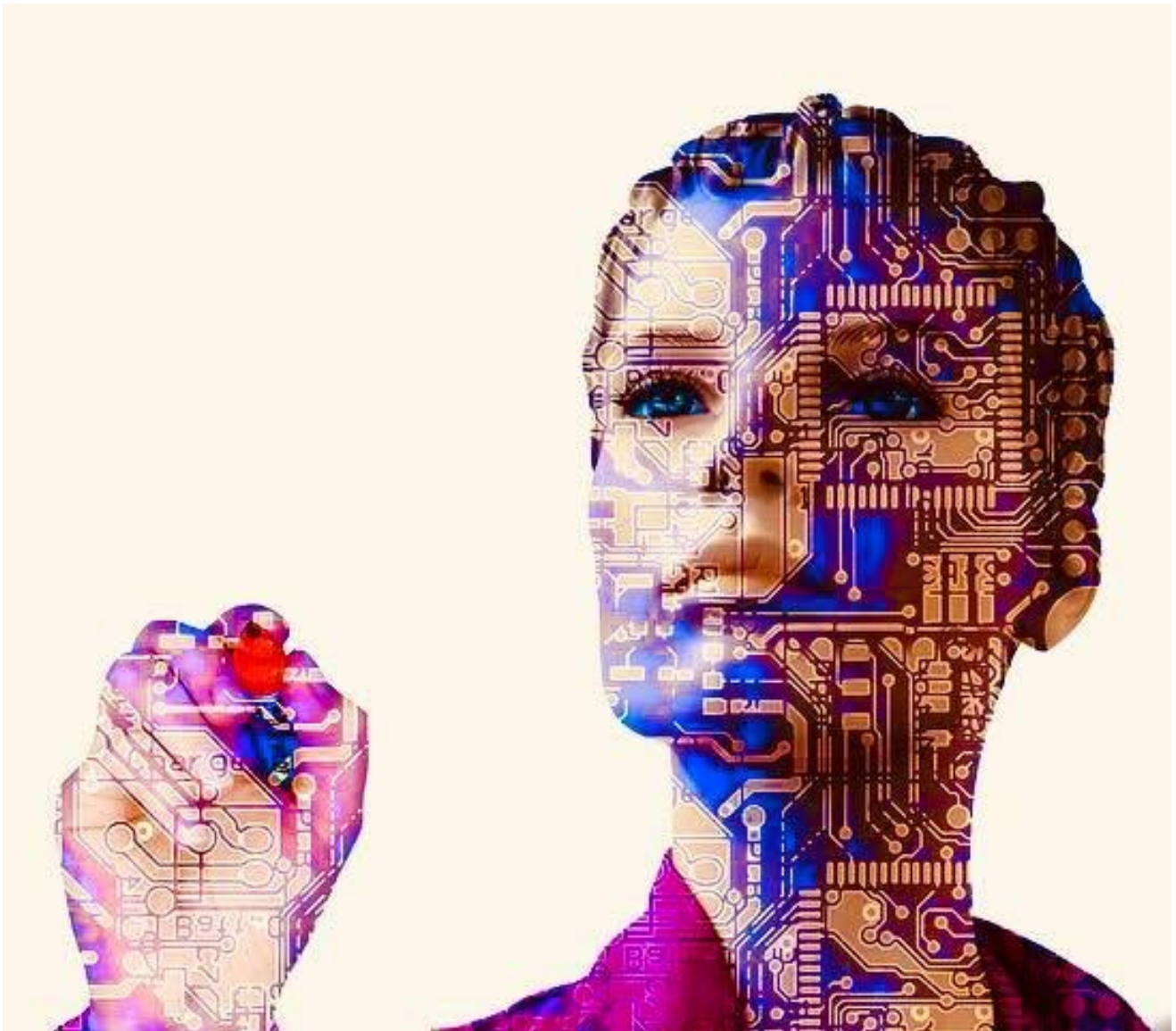


# SHE

Educational Pack KS4



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# Introduction

We are a group of 16 Third Year Theatre and Performance students at The University of Leeds. As a team we have collaborated to create our final year performance *She*. The project aims to take its audiences on a journey through the untold stories of women engineers throughout history. These women had brains and brilliance, but they were restrained and limited at a time where women were not considered equal to men. Therefore they never received the credit they deserved. We intend on changing this, by telling their stories, and shedding light on the women who have been too long forgotten.

This piece comes at an appropriate time, as 2019 is the centenary of the Woman's Engineering Society. This society was put in place on June 23rd 1919, the key idea was that this would help women keep their engineering jobs after the WW1. In addition the society hoped to encourage other women to take up the job. Its network is just as important now as it was then. We hope our performance will reflect the values of the society, in inspiring and educating our audiences on women in engineering.

## The Team

### **Project Supervisor :**

Dr George Rodosthenous

### **Cast :**

Amelia Hampton-Williams

Abbi Karitons

Rebecca Heffer

Chloe Cobham

Fran Partlett

Lucy Johnson

Natalia Jarosz

Yasmin Rapley

William Anderson

Rhianna Malyn

Sam Sheppeck

Kieron Williams

Saskia Connolly

Maria North

Lucy Murphy

Emma Hartford

# The Creative Process Research

When faced with the task of putting these incredible stories on stage, we first founded our creative process in extensive, detailed research. Our aim was to collect verbatim material that could then be used in the piece. Verbatim theatre is defined as ‘a form of documentary theatre that uses the real words of the people being portrayed’; we have tried to include this as much as possible in our performance.

Our research process has been supported by the AHRC project: *Electrifying Women: Understanding the Long History of Women in Engineering*. Professor Graeme Gooday who runs the project gave us an incredible presentation on some of the most important British women engineers, for example Amy Johnson (as seen in photo).

This presentation inspired us to dig even deeper into the stories. Professor Gooday explained how the truth about these women’s lives had often been covered up or simply ignored. We therefore sent a team to the Special Collection Archives in the Brotherton Library at the University in order to undercover as much information as we could. Here we had access to a plethora of materials, such as the entire catalogue of ‘The Woman Engineer’ magazine, which had numerous articles about the women we were so intrigued about.

In addition to materials about our women engineers, we also looked at newspaper clippings, photos and letters from the different periods these women were living in, in order to get a better idea of how women were treated in general at that time. This was essential in contextualising why women engineers were always pushed aside; they were working in a man’s world.



# The Creative Process

## Devising and Rehearsing

Our company has spent 8 weeks in rehearsal. This time has been spent devising, experimenting and collaborating ideas. All with the aim of shaping the stories of the women engineers into elegant and interesting theatre. Time has therefore been spent discussing our thoughts, putting pen to page, and getting up on our feet to put our ideas into action. We believe this process has created an effective, polished piece of drama that is both factual and inspiring.

Our rehearsal process began with each member of our ensemble doing a solo presentation on our own individual research and vision of what the piece could be. Many of these presentations created stimulus and provoked thought which then led us to each create a solo monologue on what we had found most captivating. Therefore within the first rehearsal we had 16 different ideas to work from, and some of these ideas from day one can be found in our final piece. Most importantly this process allowed everyone to have their voice and idea included in our work.

Over the following rehearsals we continued to devise and workshop ideas and stories. This allowed us to generate a lot of material very quickly, which we could then go back to edit and polish.

Overall what was most important was that we worked as an ensemble that listened to each other, and everyone was dedicated to making great work. Our main ideology in rehearsal was that it was everyone's piece, and everyone should have equal input.



# The Creative Process

## Scripting

Following on from devising, at about week three, it was time for our script writers to sit down and put our devised work onto the page. Having a script was an essential part of our performance, as it created the backbone of piece. We needed to script our work in order to find structure and to elongate scenes. Devising was a great way to get ideas flowing, and following this with writing allowed us to create a more coherent performance.

## Interview with a Script Writer - Lucy Johnson

### ***How did the script writing process begin?***

It began in the second week of the process, after we had explored and devised short scenes in our rehearsal sessions. We spent a while gathering existing materials and research to use as inspiration. After collecting more than 16 mesmerising stories of female engineers, we whittled it down to 11 which formed the bulk of the narrative. 7 of which would span over four parts, allowing us to explore their most brilliant, brave and bold endeavours.

### ***How did you find the rehearsal process once the script was formed?***

Once the script was written and finalised the rehearsal process became more structured and organised. With the script acting as the foundation for our piece, other elements of the production began to fall into place. For example, the set could work in tandem with the narrative, costumes and props could be sourced and characters could be casted. Most importantly, our actors were able to focus on character arcs and nuances in order to give an authentic performance.

### ***What has been your favourite part of being a script writer?***

I have enjoyed exploring and researching these wonderful women. Learning about the likes of Hedy Lamarr and Emily Roebling has been a pleasure. I felt it to be my duty to give these wonderful women a voice; to explore their personalities, their struggles, and their triumphs. They are all truly an inspiration!

### ***Do you have a favourite scene?***

My favourite scene is Part I of Hedy Lamarr. We are introduced to a beautiful woman who cleverly escapes the confinement of married life in order to peruse a career in Hollywood. However, we soon find out she is not just “the most beautiful girl in the world”, she is a natural born genius.



# The Creative Process

## Designing the Production

Alongside generating material for the piece, our design team was always on hand to take the work and place it in the context of the final show. Ultimately an exciting, dynamic performance works on multiple levels, and the set, lighting and sound is what ties it all together. From the start of the creative process we were also thinking about music that could go with scenes, how we would use the set, or how it might be lit. Our design team has made sure that the performing was not separated from the technicalities.

## Interview with a Designer - Abbi Karitons

### ***What role have you taken in the designing of the production?***

I, alongside Amelia, have worked on the set design for the production. This included deciding on a thrust stage format, as well as what the set would look like. For example what colours would be used in the set and also where we could create levels through platforms and scaffolding.

### ***What was the creative process in designing the set? How did you decide what it would look like?***

I began by researching into what the show was going to be about; in this case 'women engineers'. From this stimulus I created mood boards of colours that I felt reflected this topic, for example industrial colours like bronze and copper. I then also looked at images of set designs of other shows to see what might inspire me. I then began sketching ideas of a set, combining all the images and ideas I had collated. After this process Amelia and I created a model box of what the stage would look like. This helped us visually experiment with how we could fill the stage, and make each part of the stage interesting as well as useful and effective for performers.

### ***What have you learnt from the process?***

I have learnt how important it is to keep organised. We, as set designers, are the first people to start planning what the show is going to look like because it takes us the longest to order and prepare everything. Furthermore I have found it challenging to keep on top of all the maths and measuring of the space! The exact measurements are so important, and sometimes it is something you forget about!

### ***What's your favourite part of the set?***

My favourite part of designing the set was the research and planning, because once you have the basic ideas it's so fun to see them start to come to life as you create them. Within the set itself my favourite part is the scaffolding and platforms, these are multipurpose and effective at allowing each scene to become a new place.

# The Creative Process

## Creating Interactive Theatre in Thrust

We decided to configure our production in thrust in order to break the fourth wall and involve our audience with the work happening on stage. Thrust enables our actors to interact directly with the audience and make them feel part of the action. This however came with its challenges, as our actors had to be much more spatially aware, as to not put their backs to many audience members. We would often have to block scenes multiple times in order to make sure all the audience would have a good view.

## Interview with a Performer - Maria North

### ***What challenges arose from performing in thrust?***

Performing in thrust staging has been difficult for me because I have had to learn to split my attention between three sides of the room. One of the key challenges in rehearsal therefore was directing our scenes within this staging, so all could be seen and heard. For example in ensemble scenes we would have to give each cast member a specific position or level so no audience member, or other cast member was blocked. Although this has been challenging, it has given us the opportunity to experiment with a variety of ways of performing, redirecting the choreography to the sides and creating a more exciting and aesthetic atmosphere on stage that is hopefully captivating!

### ***What have you most enjoyed about being a performer in SHE?***

As a Theatre and Performance student, I often find myself working in large groups, however, I believe that this is the biggest group that I have worked in so far and honestly, it has been the most enjoyable. Putting the show together has been a rewarding challenge. Perhaps most ...

rewarding as a performer is the individuality we have each been able to put into the show. All the cast, including myself have been able to put across our opinions and views. This means that our finished product contains a part of all of us, our blood, sweat and tears, and it has culminated in a performance we can cherish and experience together.

### ***What's your favourite scene and why?***

A memorable scene for me is where Emily Roebling, the woman who completes the building of the Brooklyn Bridge for her husband, is watching the workers from her bedroom. The aesthetics of this scene are empowering as we see Emily watching, from the highest point of the stage, the impending work that she will soon embark upon. For me this scene shows how the roles have reversed, and how a woman, even at that time, could become a leader in a male dominated field. Furthermore, the movement sequence in this scene by the workers is very effective; the power, strength and cohesion of the actions enforce the sheer collective effort of the workers then contrasted against their pain and weakness from cajun sickness.



# Some of Our Women Engineers



## Hedy Lamarr : 1914-2000

**Engineering Feat :** The frequency hopping system intended for the US navy during WW2. It was used to guide radio controlled missiles underwater in a way that was undetectable by the enemy. This technology set the foundations for bluetooth and wifi.

**Beauty and Brains:** She was a Hollywood actress and named “the most beautiful woman in the world”. When her Hollywood career dwindled she focused on her inventions.

**Quote :** “Any girl can be glamorous. All you have to do is stand still and look stupid”



## Grace Hopper : 1906-1992

**Engineering Feat :** Invented computer programming

**Success from an early age :** Got an early admission to Vassar college at the age of 17 to study mathematics and physics and earned a masters and PhD at Yale.

**Quote:** “If it’s a good idea, go ahead and do it. It’s much easier to apologise than it is to get permission”



### **Amy Johnson : 1903-1941**

**Engineering Feat :** She was the first British-trained woman ground engineer and the only woman in the world to do so at that time.

**Breaking Records :** She was the first woman to fly solo to Australia. She came home to the UK to a hero's welcome which culminated in her award of a C.B.E.

**Quote :** "Had I been a man I might have explored the Poles or climbed Mount Everest, but as it was my spirit found outlets in the air"



### **Josephine Cochrane : 1839-1913**

**Engineering Feat :** She invented the first commercially successful automatic dishwasher.

**Providing for Her Family :** Her husband left Josephine and her two sons an immense amount of debt from his alcoholism, so making a successful dish washer became a matter of survival for her family.

**Quote :** "I couldn't get men to do the things I wanted in my way until they had tried and failed on their own. Then they realised my way was the best way."



### **Emily Roebling : 1843-1903**

**Engineering Feat :** Responsible for guiding the construction and completion of the Brooklyn Bridge.

**More than just a Wife :** Her husband was the original chief of the project, but he fell ill in 1872 she served as his liaison with the engineering team. Over time she displayed such proficiency in the issues of construction, that many even concluded she was the chief engineer.

**Quote :** “I have more brains, common sense and know how generally than have any two engineers, civil or uncivil”



### **Mavis Batey : 1921-2013**

**Engineering Feat :** She was one of the leading codebreakers at Bletchley Park in 1939-1946. She broke enigma ciphers that led to the Royal Navy's victory over Italy in 1941, and crucially to the success of the D-Day landings in 1944.

**Saving England :** It is estimated that the work done at Bletchley park shortened the war in Europe by two years.

**Quote :** “There was a sense that we were doing something important. I am proud of what we did.”

# Curriculum and Skill Development

## KS4

Most GCSE Drama and Theatre qualifications are broken down into 3 main components:

1. Understanding Drama: theoretical sense of texts and analysis. (AQA)
2. Devising Drama: Practical element in terms of devising a performance piece from scratch. (AQA, OCR and Edexcel)
3. Texts in Practice: Performing a piece of already written and established text, sometimes two pieces of text. (AQA, OCR and Edexcel)

This pack will be focusing on drama in practice by giving example activities that could be done in class. Therefore it will be touching upon components 2 and 3, as well as extending the GCSE specification by also looking at Set Design.

## Devising

Our piece was devised from head to toe, whereby our creative process involved us taking the stories of these women and weaving them together for dramatic effect. Devising is a difficult task, but it brings with it great opportunity for creativity and can create great theatre.

### **Characterisation Warm Up :**

To begin the devising process it is imperative to have characters to work with within in a scene. Therefore to start off with get each student in the room to choose a character from the piece. For example one of the women in the pack, or one that stuck with them from the show. Now get them to THINK about their characters

- class
- family
- appearance
- lifestyle

once the students have a clear idea of their character get them to walk around the space as this character. They should try and embody the posture, walk and nuances they think their character has. Following this allow the

students to interact with another as their characters. Would they say hello? If so how? How do they speak?

**Activity :**

Now get the students to split up into groups of 4 or 5. Let them choose one of the chosen characters of a student in the group, whoever they find most interesting. Allow them to choose a favourite part of this characters story, for example, if they have chosen Amy Johnson, one student might be Amy and the others her best friends at University. Now get them to devise a scene, and then show these to the class.

Discuss with them what part of a story would make a good scene, how they can fit everyone in the group into it, and would it be captivating to an audience?

**Progression :**

To extend this devising activity, you can make it a little harder for the students. Now ask them to change groups, and this time they aren't going to choose a character, but they have to make up their own.

Discuss how they could make a scene that is relevant to our piece, but is set within the modern day. This will allow them to use their imagination more, and really start from scratch.

**EXAMPLES :**

'A scene about a female student engineer at university who is not accepted'

'A scene about trying and failing to create an invention'

'A scene about a woman engineer working in a male dominated office'

## **Text In Practice**

Specifications in drama state that students should be able to explore texts, understanding their social, cultural and historical context. Furthermore they should be able to apply theatrical skills to the text. In *She* our piece was set across multiple different periods of time, and we had to use different techniques to show this.

Get the students into groups and give them one of the following scripts :

3 PEOPLE : 2 BOYS. 1 GIRL.

## **Emily Roebling, Part I 'The Great Bridge' : 1860's**

John: A bridge over the East River, joining the cities of both Brooklyn and New York, has been talked about for as long as I can recall.

Washington: Taking one giant leap from shore to shore.

John: There can be no piers or drawbridge. No. It must be one great arch all the way across.

Washington: It's ambitious.

John: But surely it will be wonderful?

Washington: Yes Father. What will you call it? The Empire Bridge? The New York Bridge?

John: The East River Bridge? The Great Bridge?

Emily: Well it connects to Brooklyn, so how about the Brooklyn Bridge?

John: Maybe.

Washington: It certainly has a ring to it darling.

John: Yes well, Emily can help us decide when you get back.

Emily: Back from where?

Washington: Europe.

John: Europe is advancing in the field of civil engineering, we won't find much inspiration here. So I want Washington to go to Europe while I hold the fort.

Pause. John looks at the daily paper. Emily and Washington are staring at each other. Washington looks sympathetic, Emily looks confused.

John: These damned unionists! This bridge is causing quite a stir. I don't know if I can sway them.

Emily: Don't worry John, most people are afraid of greatness. Just be patient, calculated and composed. Be confident.

Washington: ...

John exits.

Emily: Well?

Washington: I'm sorry about Europe.

Emily: It's okay. I just wish you'd told me earlier.

Washington: Why's that?

Emily: Because I need time to pack.

Washington: Honey, you can't come with me.

Emily: Why not?

Washington: You don't have any expertise in the field.

Emily: What a wild assumption to make. I know my Math and my Science.

Washington: Maybe so, but that's not the same.

Emily: My point is... I have a brain, not a thick skull.

Washington: I'm only going to do some research, it's boring.

Emily: I'm easily amused.

Washington: Emily, you know what my father will say.

Emily: So don't tell him! It can be our secret adventure. And who knows, maybe we'll build the Brooklyn Bridge together.

Washington: We're not calling it that.

3 GIRLS.

## **Bletchley Park, Part II 'WAR IS OVER'. 1945.**

Mavis: That reminds me, I had a tremendous argument with my father the other night. I was planning to go to Aylesbury to buy myself a pair of trousers. He said "you're not going to do anything of the sort!"

Betty: Oh dear!

Jean: How very narrow minded of him.

Betty: I think you should buy them.

Betty begins to twiddle her cabbage soup.

Mavis: I will! I said "it's my money and I'll do what I damned like!"

Jean & Betty: Gosh.

Mavis: I think in the future every woman will be wearing trousers.

Betty: I think you're right.

Betty has a mouthful of her soup. She splutters and chokes.

Betty: This food is indescribable!

Mavis: Give it ere Betty, I'll gobble up anything I'm given!

Jean: Ladies... I've been waiting to tell you something. But, you must promise me that you will not tell a single soul!

Betty: My, Jean, what is it that you want to tell?

Jean: [Building up suspense, before excitedly stating:]...Vernon has asked for my hand in marriage!

An awkward pause.

Mavis: Oh.

Betty: Vernon? ...Well, What did you say?

Jean: Well, at first I said no... but then I said yes!



Mavis: But Jean, isn't he... one of those... awful types?

Jean: Well, yes, at first he did seem rather unpleasant. But truly he's very kind – he brings me that toffee I like from the market every day!

Betty: So you've decided to marry him because he brings you toffee?

Mavis: Good God Jean, what would your mother say?!

Jean: That's unfair! If you really think about it, who else is here at Bletchley that I would ever want to marry?

Betty: Well, alright Jean, as long as you're happy.

Mavis: This calls for a toast! Let's all go to the lounge after our shift and have a gin and French or two.

Betty: Oh I don't think so. Mother said that there is nothing more disgusting than an intoxicated woman! We're not whores Mavis!

Mavis: Betty!

Jean: One tippie won't hurt!

CHANGE HERE TO NEW LOCATION. - Enigma Office

Jean: 'Receiving official word from the Russian army'

Mavis: 'Mines spotted in the West Field.'

Betty: 'Location of the Ninth Army?'

Jean: Something about the war. Something important?

Mavis: 'The angular velocity of the... mortars?'

Jean: 'War in the West...'

Betty: 'Bombers spotted over Western Germany, headed towards allied bases in Eastern France.'

Mavis: 'Struck fast and encircled...'

Jean: 'The war in the West is...'

Betty: 'Our troops are closing in now.'

Mavis: 'Planning to advance.'

Jean: 'Over?'

Mavis and Betty look at Jean as her eyes widen. She stands up.

Jean: 'The war in the West is over, repeat - the Germans have... surrendered-'

All three are in disbelief. Still.

Jean: Girls... [she cracks a smile] It's over! IT'S OVER!

1 GIRL. 1 BOY. 3 CROWD MEMBERS

## **Amy Johnson, Part III 'Moon to My Moth' : 1930's**

Crowd member 1: YOU WON, YOU WON!!!

Amy: Thank you, thank you. Had I been a man I might have explored the Poles or climbed Mount Everest, but as it was my spirit found outlet in the air. This flight is dedicated to all those who fell by the wayside, for nothing is wasted, and every apparent failure is but a challenge to us.

Crowd member 2: Amy, Amy, we love you!

Crowd Member 1 : I can't believe you did it Amy!

Crowd member 3: You beat Jim Mollison! You beat Jim Mollison!

Jim: [Jim has a Scottish accent] Miss Johnson.

Jim: (pause) In all my life-

Crowd member 1: Jim, leave it.

Crowd member 2: Amy won fair and square.

Jim: In all my life as a pilot. I have never been bested. You shook my hand. You looked me in the eye and wished me luck. [he spreads his arms] Ladies and gentlemen, there is a witch among us.

Crowd member 2: Aw Jim, leave it-

Jim: At midnight, she placed a single sprig of honey soaked thyme underneath her pillow, and when the moon did wane, she took the sprig and flung it from her highest window. And this, this did the trick.

Crowd member 3: He's lost it.

Crowd member 1: What on God's fine earth?

Jim: You have bewitched me, Miss Johnson.

Amy: Bewitched?

Jim: Body and soul.

Amy: What is this?

Jim: Miss Johnson. (he falls to his knees) If you pilot the Gypsy Moth, let me be the moon towards which you fly.

Amy: I waited seven years to hear those words from Hans. To hear it from you who I've known, what, seven hours?

Crowd member two: (chiming in) Six hours.

Amy: My entire life has been a series of.. moments. Chasing zeppelins, barely graduating, moving to London... learning to fly. Setting off to face the unknown. No money, one friend. I've had to make every moment count.

Jim: This, right here, is a moment. Isn't it? Touch the ground, Amy. Live in this moment. Marry me, Amy Johnson, and I promise that the races never have to stop. We can fly, but we can do it together.

**Think :**

Now Allow them to do some research into the time period of the script.

Let them think about

- How the characters might sit or stand at that time
- What might they be wearing and will this change their movements
- How will they talk?
- How will women be spoken too?
- Will the women be more timid?

How else might they show the period, could they play a song perhaps?

**Activity:**

Now get them to get the scene up on its feet. They can get into groups and choose a character and act the scene. You will notice there are little stage directions on the scripts.

This is so the students can direct it themselves.

Ask them to try the scene in two different ways. Perhaps one version in thrust and one proscenium arch? What difference is made?

Or just stage it differently by placing the characters in different places on stage. Use levels. What is the effect?

Get them to perform the scenes back and DISCUSS which version worked better, why?

## Set Design :

**Think :**

Get the students to choose a character from *She*. But this time think about where this character lives, where are they from. What does it look like? In addition think about places they might go too. For example, Emily Roebling goes to the Brooklyn Bridge, or Henrietta Swan goes to the Observatory.

**Activity :**

Now lead the students to start thinking about this in terms of a set. What kind of space would be needed to stage the characters story, what different locations need to be shown on stage? Would the scene remain in one location or would it need to also move to other places?

Now get the students to create a mood board. This is an activity that our set designers did at the beginning of their process! This can be a really fun creative activity, the students can use scrap material, colourful pens, sketches etc to create a mood board for their character's set. It should encapsulate what atmosphere the set will produce.

**Progression:**

Now the students can take this a step further and do an actual sketch of their ideal set. They will need to think about:

- What configuration is the set in? In the round? Thrust? Proscenium arch?
- How many different locations are there going to be?
- What's on stage? A bed? Chairs? What will they add to the scene?

If you have the resources available you could even get all the students together to create a 3D set! Each student could bring in something to add to it.