REAL LEARNING JOURNEY

Innovation Unit

REAL. PROJECTS

rigorous. engaging. authentic. learning

Introduction

"At High Tech we're constantly thinking 'what went well' and 'what could have been improved'? Learning is just part of the way we work. We live and breathe it."
Kay Flewelling, REAL Projects Classroom Coach

As a **Trial School in the REAL Projects programme**, you are about to embark on an ambitious and challenging year. We know that project based learning can be transformative for schools and the students and teachers within them. But how can we make sure that we document and tell this story of transformation in powerful ways?

At High Tech High, **learning, documenting and storytelling** are a core part of the school's ways of working. From dedicated videographers who capture classroom practice and student work to a Graduate School designed to foster a learning culture and support the growth of reflective leaders, the importance of learning about and communicating the impact of project based learning is firmly embedded in High Tech High's approach and offer.

Through the REAL Projects Trial Schools our ambition is to support the development of a community of schools who are committed to extending what we know about project based learning in the UK, reflecting on and capturing the impact that it is having, and sharing those insights and stories with others. This pack - along with the poster planner that accompanies it - is designed to provide you with a range of ideas, hints and tips that will help you to collect and share powerful stories about your REAL Projects journey.

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

What you'll find in this pack

The **Key Themes** will support you to think about the topic areas and questions that you might use to provide structure and focus to the information, insights and data that you gather.

The **Activities and Artefacts** section will give you some ideas about how to collect and document your learning and create products that help you to tell the story of REAL projects in a compelling way.

We have provided some ideas here about ways in which you might **share and exhibit your findings and products** to enable others to benefit and learn from them.

LEARN

↓

DOCUMENT + TELL YOUR STORY

↓

SHARE + EXHIBIT

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

Why are stories about REAL important?

People will ask questions about REAL Projects:

◆ What are REAL Projects?
◆ Why is your school trialling REAL Projects?
◆ What are you hoping to achieve through REAL Projects?
◆ How will my child benefit from REAL Projects?
◆ How might I teach REAL Projects?
◆ What impact is REAL Projects having?

The people asking questions will range from parents to other teachers, governors and - of course - students. Some will be interested in REAL Projects and keen to get involved or adopt the methodologies and practices, while others will be 'healthy sceptics' who want to see evidence that project based learning works.

By thinking carefully about how you tell the story of your Real Projects journey and what kinds of artefacts you can create, you will be more confident both to promote and defend REAL Projects and encourage buy-in from different stakeholders.

Some guiding principles for your learning journey

1. Keep it simple
We know that teachers are busy people. That's why it's important not to see this as a daunting task. You can tailor your approach in ways that are manageable for you. If you don't have much time, think about small and simple things that you can do to make your work visible to others - such as taking high-quality photos of student work and annotating it in ways that explain the process that students have followed.

2. Be creative
The ideas included in this pack are by no means a comprehensive list, and we hope that such a creative and innovative group as you will be able to supplement them with your own ideas and inspiration!

3. Be honest
Part of this process is about generating useful learning about how to effectively implement project based learning in UK schools. We don't just want a sugar-coated version of your journey - we also want useful information and lessons related to the challenges that you have faced and the ways in which you've overcome them.

4. Share and exhibit!
You are lucky enough to be part of a community of schools who are going through the same journey as you, so make sure that you capitalise on that! An important part of your learning and storytelling journey should be to build in moments when you find ways to share your outputs with others. We have provided a number of ideas at the end of this pack about how you might do this.

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

KEY THEMES

What do you want to learn about **REAL** Projects?

Principles
I want to learn about the theory behind REAL Projects

Process
I want to learn about how to deliver REAL Projects

Impact
I want to learn about the different impacts of REAL Projects

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

REAL. PROJECTS
rigorous. engaging. authentic. learning.

REAL Learning Journey
Principles

All students are capable of excellence

REAL Projects are designed to push all students to create excellent work. The use of multiple drafting and critique, and the emphasis on final product, authentic audience and public exhibition, gives students the time, motivation and techniques that allow them to develop their work to a high standard.

A belief in the importance of equity underpins the REAL Projects approach: we hope and believe that all students stand to thrive as a result of rigorous, engaged, authentic learning. It it is not exclusively for those who are more or less academically able.

Questions you might ask:
- Does this principle stand up in practice?
- How do students who struggle in traditional classroom settings respond to REAL Projects?

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

Student work matters beyond grades and exams

Education should not just be focussed on ensuring that students get the best possible exam grades but should aim to support them to grow and develop in a variety of different ways, in a manner which prepares them successfully for life and work beyond school. It should aim to appeal to and build on students' strengths and passions and make students excited about what they are learning.

Although few educators would disagree with this principle, in reality it can be difficult to keep sight of the importance of students' broader development and attitudes to learning, particularly in the context of pressures from Ofsted. How can REAL help teachers to value learning beyond grades and exams, and what are the key factors that prevent them from doing so?

Examples of questions you might ask:
◆ What new skills and competencies are students gaining through REAL Projects?
◆ How can we demonstrate the multiple ways in which students develop as a result of REAL Projects, and not just academically?

Innovation Unit

REAL.
PROJECTS
rigorous. engaging. authentic. learning.

# Schools and classrooms are communities of learners

REAL Projects encourage teachers to give more ownership to students through choosing the topics that interest them and directing their own learning and research. REAL classrooms are also collaborative, encouraging students to learn from one another, while teachers also stand to learn from students.

 People from beyond the school walls - whether business owners or parents - might also be invited into the school to help to teach a project that relates to their interests and expertise. In these scenarios the roles of 'teacher' and 'student' become blurred and fluid as learning takes place on a more reciprocal basis than it might in traditional classroom settings.

Yet relinquishing control and giving more autonomy to students can be difficult for teachers, and is not without its challenges and pitfalls. Some teachers worry, for example, that increased group work might mean that some students might be 'carried along' by other students.

Some examples of questions you might ask:
◆ What do we mean by 'a community of learners'?
◆ What are the challenges and benefits of this principle: 'schools and classrooms are communities of learners'?
◆ How and what can teachers learn from students through REAL Projects?
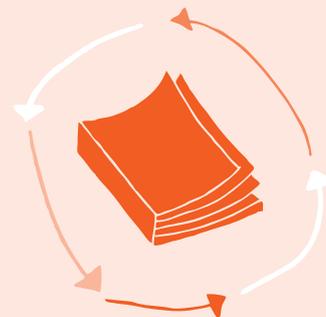
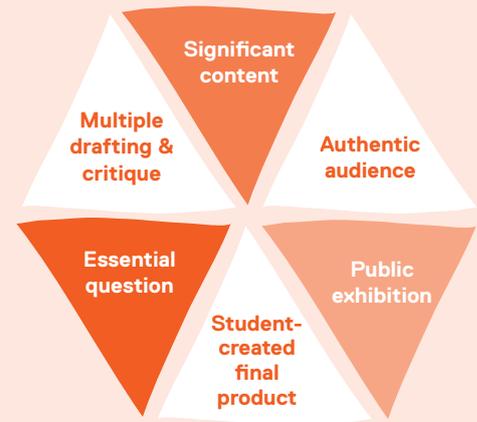# The six components of REAL Projects

Multiple drafting and critique, student-created final product, significant content, essential question, authentic audience and public exhibition are the six components that we feel it is important to have in place in order to ensure that projects are rigorous and push students to create excellent work that simultaneously raises outcomes.

Of course, these components can be challenging to implement, and we still have much to learn about ways in which they can be put to effective use in UK classrooms.

Examples of questions you might ask:
◆ What are the challenges and benefits of each of the six components of REAL Projects?
◆ What do public exhibition and authentic audience really mean?

Significant content

Authentic audience

Multiple drafting & critique

Public exhibition

Essential question

Student-created final product

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

REAL Learning Journey
Key themes: Process

Leading REAL Projects

The role of people who are leading REAL Projects is an exciting but challenging one. Leads need to be able to motivate and inspire their teams in the face of scenarios and contexts that are often difficult.

Teachers who are trying out different ways of working need support and reassurance throughout the journey, and the Leads need to be able to provide this support as well as remaining focussed on the strategic vision for the work. What can we learn about what it takes to lead REAL Projects effectively?

Examples of questions you might ask:
- What makes a great PBL Lead?
- What is involved in the work of a PBL Lead?

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

Teaching REAL Projects

We know that teaching PBL can be powerfully transformative for individuals who teach PBL, often having a significant impact on the ways in which they work in the classroom and how they conceive of their professional roles. Yet it can also be challenging, and fraught with questions and concerns.

Teachers need to be able to master a range of new skills and competencies, from being able to facilitate classes differently, working in different ways with their peers, and using different methods of planning and assessment.

Examples of questions you might ask:
◆ What does it take to be a REAL Projects teacher?
◆ How can teachers of REAL Projects work together effectively?
◆ What learning and development needs do teachers who are new to PBL have?

Using protocols in schools and classrooms

At High Tech High, protocols are embedded in practice and used to support collaboration by providing structure to conversations and meetings. During the Pilot Year we found that protocols were viewed and utilised by teachers with varying levels of success and enthusiasm.

What can we learn this year about the effective use of protocols both with students and colleagues?

Examples of questions you might ask:
◆ How can we make the case for using protocols more often with colleagues and in classrooms?
◆ Why use protocols?

The impact of REAL on the quality of student work

◆ **What happens to the quality of student work when they undertake REAL Projects?**

◆ **If quality improves, what are the key drivers behind this?**

◆ **What evidence can we generate to demonstrate this?**

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

The impact of REAL on academic outcomes

- ◆ How are academic outcomes (e.g. literacy) impacted by REAL Projects?
- ◆ What are the key drivers behind this?
- ◆ What evidence can we generate to demonstrate this?

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

The impact of REAL on student engagement

◆ Are students more engaged in their learning as a result of REAL Projects?

◆ Why is this?

◆ What evidence can we generate to demonstrate this?

REAL Learning Journey
Impact

The impact of REAL on 'soft skills'

- ◆ **In what ways is REAL having an impact on skills such as oracy, confidence and other types of social and emotional learning?**
- ◆ **Why is this?**
- ◆ **What evidence can we generate to demonstrate this?**

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

Impact of REAL Projects on the relationship between the school and the wider world

◆ In what ways can REAL Projects change the relationship between schools, parents and the wider community?
◆ What evidence can we generate to demonstrate this?

Impact of REAL on '21st century skills'

◆ **From analytical thinking and problem solving to creativity and collaboration, how can REAL Projects equip students with the skills to thrive in 21st century life?**

◆ **What evidence can we generate to demonstrate this?**

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

ACTIVITIES & ARTEFACTS

10 Ideas

REAL Learning Journey
Activities & Artefacts

Write an article or blog

Writing a piece of analysis or a reflection about REAL Projects can help you to consolidate what you are learning, as well as giving you the satisfaction of being able to share your thoughts and work with a wider audience.

There are a variety of channels through which you might get a piece of writing published. Consider setting up your own blog, or ask for it to be published on the REAL Projects blog. Education publications such as the Times Education Supplement or Guardian Education might also be interested in publishing your work.

We can help with: Giving you ideas about what to write, helping you to structure your article, proofreading and editing your work or getting your piece published through appropriate channels.

Check out:
- Articles written by teachers and coaches on the Innovation Unit blog. **http://www.innovationunit.org/blog**
- High Tech High's catalogue of Unboxed publications, which include a vast range of articles written by teachers about their experiences of REAL Projects.

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

REAL Learning Journey
Activities & Artefacts

Use a videographer

At High Tech High, the school created a role to collect high-quality videos that document how projects happen and the impact that they can have. Consider collecting your own videos or support your students to create videos about what's happening in the classroom.

We can help with: Providing you with tips and advice about how to set up and get the best out of a videographer role.

Check out:
◆ **http://bie.org/objects/cat/videos** - BIE has an amazing collection of online videos about PBL.
◆ **http://www.edutopia.org/project-based-learning** - You can also view great videos on the Edutopia website.

Innovation Unit

REAL. PROJECTS
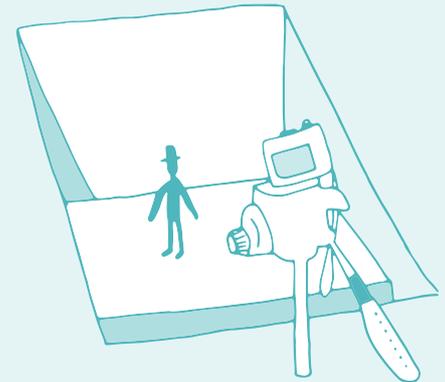rigorous. engaging. authentic. learning.

Create an animation

Animations don't have to be expensive or difficult to produce - they can also be simple and low-budget. There are a number of online tools - such as wideo.co - that can support you and students to create simple animations. Animations can be particularly appealing to young audiences, explaining and presenting concepts and learning in fun and easy to understand ways.

We can help with: Providing you with ideas about the different kinds of animations that you could make, as well as links to resources.

Check out:

◆ http://www.downs.kent.sch.uk/page/default.asp?pid=11&title=Animations - A primary school in Kent has embraced the principle of exhibiting student work and posted a number of stop motion animations made by students online. Check them out for inspiration and a taste of what is possible.

◆ http://ictacrossthecurriculum.wordpress.com/2012/10/16/stop-motion-animations-monkeyjam/ ia a link to a how-to information page on creating your own stop motion animation.

REAL Learning Journey
Activities & Artefacts

Write a project analysis or card

High Tech High's Unboxed cards offer a way for teachers to record and present - in a structured but simple format - the projects that they have completed with students. Cards are very basic, including some images, a brief description of the project and reflections on the work from teachers and students.

If you want to go into a little more depth you might want to consider doing a more detailed analysis of your project, including descriptions of ways in which you planned and assessed it, the challenges and highlights of the process, and the impact that the project had.

We can help with: Providing you with templates to support you to think about the kinds of information you might gather as part of a project analysis, and how you might present this information.

Check out:
◆ http://www.hightechhigh.org/ unboxed/cards/, where you can find an impressive bank of High Tech High's Unboxed cards.

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

Document student work as it develops

The impact of multiple drafting and critique is often reflected in the high quality of the work that is produced by students - but as anyone who has seen the video 'Austin's Butterfly' will know, it is also important to document the evolution of the work in order to tell a story of the true power of PBL.

Ensure you take photos of or document the iterative process that student work passes through, as well as the polished final product. You could create an e-Portfolio of student work, or even create a live blog where you keep a record of what you are doing and learning in the classroom, which students, parents and other teachers can view.

We can help with: Advice about how to collect and display examples of classroom practice and student work.

Check out:
◆ **http://www.hightechhigh.org/ schools/HTH/?show=dp** - A bank of digital portfolios that all staff at High Tech High are expected to keep updated.

REAL Learning Journey
Activities & Artefacts
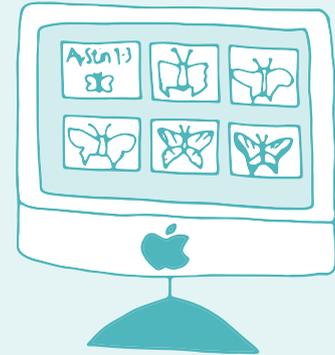
Develop student success stories

During the Pilot Year we saw students who really thrived as a result of REAL Projects. Billy at Stanley Park, for example, has ADHD and struggles to focus on his work in traditional classroom settings. Yet he thrived in a PBL setting, which gave him the opportunity to learn in a more dynamic environment, interact with his peers and see his work develop into something he could be proud of.

We captured a video of Billy talking about his work on medieval castles. The video tells a powerful story about the potential of PBL to support struggling students and provide a range of innovative methods through which they can thrive and develop.

During the Trial School year our ambition is to collect more stories like that of Billy. You might want to select a sample of students and track their progress through the course of the school year as they learn through projects. You could do this through videos or photographs that document their work, for example. Or you might provide them with journals that enable them to record their own learning, thoughts and reflections on the PBL journey.

We can help with: Providing you with tips and guidance about how to develop and present compelling stories and case studies.

Check out:
- http://bie.org/blog/tell_the_story_celebrating_student_success - A blog about the need to celebrate student success stories, including examples of written and audiovisual stories and links to other similar resources.

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

REAL Learning Journey
Activities & Artefacts

Design and conduct a survey

Imagine that you want to answer a question such as 'What do parents think of REAL learning?' You might be able to design your own survey to investigate this question using simple, free online tools such as SurveyMonkey - or even an old-fashioned paper-based survey.

But also be aware that there are a number of formal and validated surveys out there that might help you to measure the impact of PBL. You could consider measuring:

- attendance rates - are attendance rates higher on days when PBL is happening?

- homework completion rates - are students more likely to complete their homework on time when it is related to PBL?
- student engagement in learning - there are a whole host of established surveys to measure student engagement in learning and in the classroom.

We can help with: Supplying you with possible resources and measurement tools and advising you as to how best to use them.

Check out:
- http://ies.ed.gov/ncee/edlabs/regions/southeast/pdf/REL_2011098.pdf - In this report the Regional Education Laboratory offers an analysis of 21 different instruments that you might use to measure student engagement and learning.

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.

Collect testimonials

"I am really proud and astonished by what my son has achieved." So said one parent at a REAL exhibition run by Goole High School during the Pilot Year. Gathering feedback from students, parents, teachers and other members of the community can be a powerful way of learning about and telling the story of the impact of REAL Projects.

Make a record of the things that people say, and remember that it can often be powerful to have a picture of a person alongside a quote. You might also consider creating other more innovative devices for collecting feedback, such as installing a 'visitor book' or a whiteboard at exhibitions of student work, where people can leave their comments.

We can help with: We can feature the testimonials you collect on our own Real Projects website.

REAL Learning Journey
Activities & Artefacts

Do an awesome presentation

Presentations can come in a number of different forms. You might be adept at Powerpoint, but if you want to be a little different and experiment with presenting your learning in other original, fun and engaging ways, there are now a range of free online tools that you could try.

For example, Fotobabble offers you a way to provide narration over the top of photos, while Prezi allows you to zoom in and out of your ideas.

We can help with: Giving you ideas about which kinds of software to use, or how to structure your presentation.

Check out:
- **http://www.educatorstechnology. com/2012/05/list-of-20-free-tools- for-teachers-to.html** - it provides a list of 20 free online tools that teachers can use to create awesome presentations and slideshows.
- **http://prezi.com/dlwz21gyuj7k/a- pbl-journey/** - 'A PBL journey' is an example of a Prezi created by a teacher who took part in the Real Projects Pilot Year.

Innovation Unit

REAL. PROJECTS
rigorous. engaging. authentic. learning.
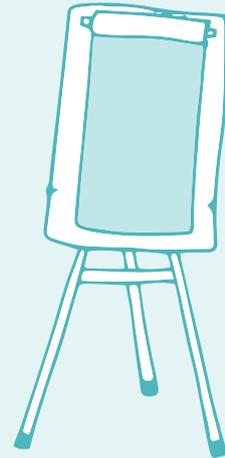
Create an impact infographic

If you are investigating different impacts of PBL, you might want to consider presenting your findings through the use of compelling data visualisation. This is an increasingly popular means of visualising information in a way that is striking and easy to absorb.

We can help with: Supporting you to think about how to visualise your information. We may in some cases also be able to provide you with some design support if we think that your information is particularly impressive!

Check out:

♦ **http://wearewhatwedo.org/ infographics/** for a bank of some of the most impressive data visualisation on the web.

♦ **http://www.pinterest.com/ mashable/infographics/** - You can also view Pinterest for some inspiring infographics.

INFOGRAPHICS
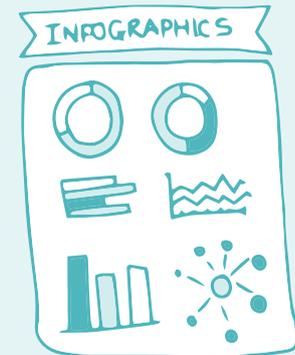
FAQ: How and where can I share and exhibit my learning?

Find some ideas below:

- Upload your work to our Google+ community.
- Set up a Flickr account and store and exhibit your photos there.
- Use your own school newsletter, create a REAL Projects newsletter, or write an article or blog that we can publish in our school-wide REAL newsletter or on the REAL website.
- Keep your own blog or e-Portfolio and make sure that you regularly signpost people to it if you think they might be interested. Your students and parents would probably love to read it!
- If you're feeling ambitious, try to get your work published in well-known education publications such as the Times Education Supplement.
- "Share the Air" on Google Hangouts: We have scheduled Google Hangouts on a monthly basis throughout the year. Teachers are invited and encouraged to share their learning and work with the REAL community as part of these Hangouts.
- Presentations: There will be plenty of opportunities where you might be able to present your learning to different audiences. For example, if you know that Classroom Coaches and Leadership Coaches are due to visit your school, schedule a time when you can share your work and learning. They will be delighted to hear what you have to say and offer feedback.
- Share your ideas at a Teachmeet.
- Do a TedX Talk! http://tedxtalks.ted.com.

Innovation Unit

REAL.
PROJECTS
rigorous. engaging. authentic. learning.