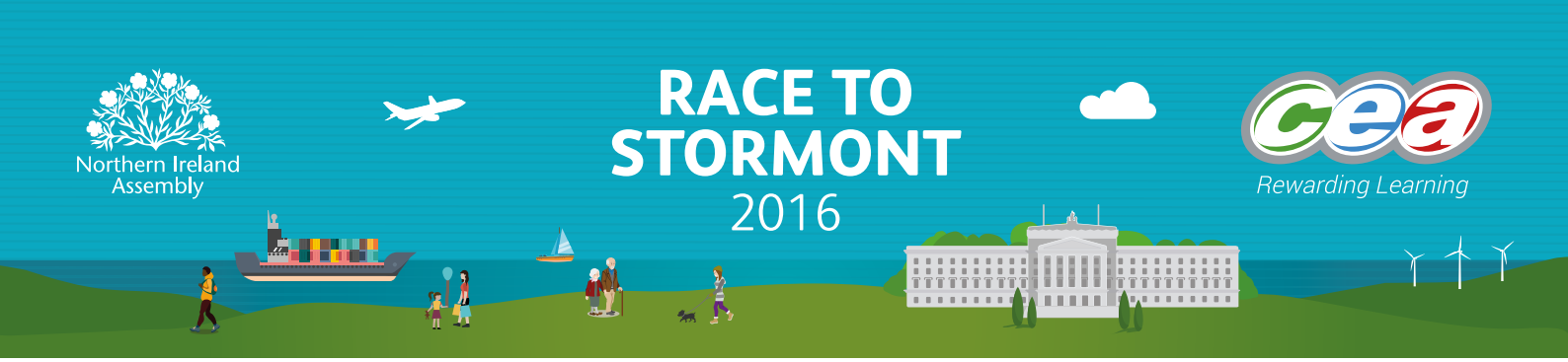


Theme 3

Education, Skills, the Knowledge Economy, and Alternative Routes to Employment and Careers

Exploring issues raised in the videos featuring Tom Buchanan MLA, Deputy Chair of the Committee for Employment and Learning, and Patsy McGlone MLA, Chair of Employment and Learning Committee.

Curriculum Links

Learning for Life and Work: Employability

Key Concept - Work in the Local and Global Economy
Exploring work in the Local and Global Economy allows young people opportunities to investigate the impact of the global market on Northern Ireland and to reflect on the implications for their personal career planning.

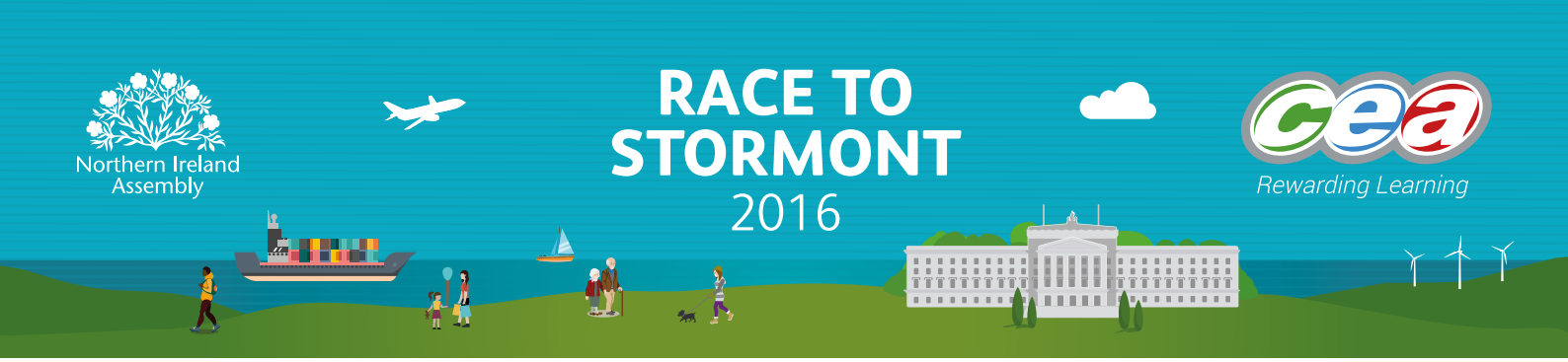
Pupils should have opportunities to:
Describe different types of work and investigate the range of employment in the local area, including any changes in employment trends, taking account of the implications for career planning, for example, find out about the main occupational sectors in Northern Ireland and how these change over time.

Investigate the local impact of the global market, for example, explore the reasons for and benefits of workers who have come from other European states and beyond.

Investigate how technology is affecting life and work, for example, examine some of the pros and cons of technology in the workplace and how this can affect work/life balance.

This text comes from the Statutory Order for the NI Curriculum detailing minimum requirements for Employability, available in pdf form here:

http://ccea.org.uk/sites/default/files/docs/curriculum/area_of_learning/learning_life_work/employability/ks3_employability.pdf



Learning for Life and Work: Employability

Key Concept - Career Management
Exploring Career Management provides opportunities for young people to investigate the changing concept of career which is moving away from the likelihood of a job for life to the expectation that individuals will experience several career changes and this will involve lifelong learning, updating knowledge and skills, self marketing and effective personal career planning.

Pupils should have opportunities to:
Assess personal skills and achievements to date; identify areas of interest and set targets for self-improvement, for example, consider the impact that subject choices and personal interests have on future career options.

Explore the changing concept of career, for example, find out about the range of jobs some people have had and consider the importance of developing transferable skills for future career opportunities .

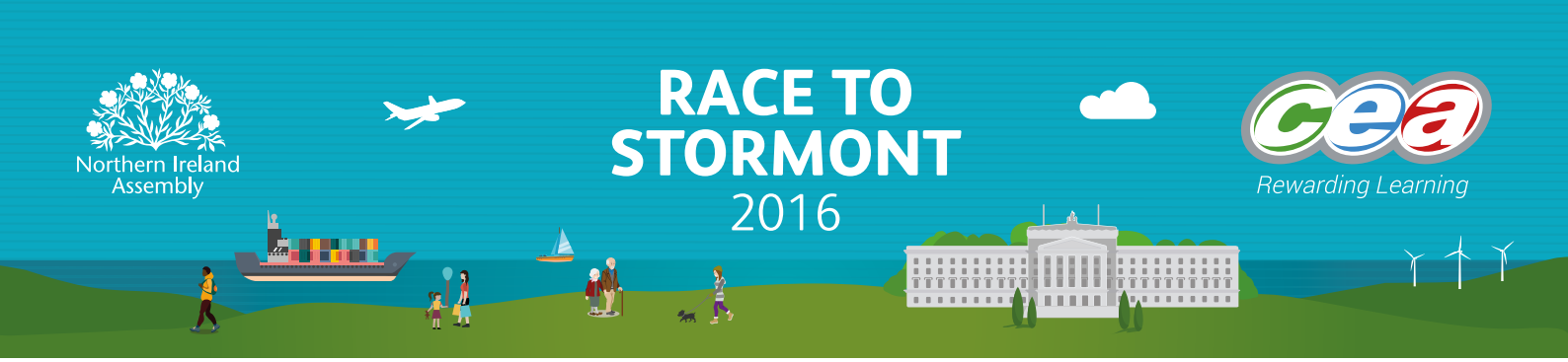
Engage in the personal career planning process to investigate and reach decisions about post-14 options, recognising that attitudes to work will change over time and are influenced by family and community values, for example, consider some of the reasons why people work and the importance of fulfilment in work.

Practise presentational and self-marketing skills, for example, find out about the qualities employers look for in potential employees.
Investigate a variety of both familiar and unfamiliar jobs, for example, explore career opportunities within various employment sectors.

Make use of appropriate information, advice and guidance to inform career management, for example, explore different pathways to a range of courses and career options.

This text comes from the Statutory Order for the NI Curriculum detailing minimum requirements for Employability, available in pdf form here:

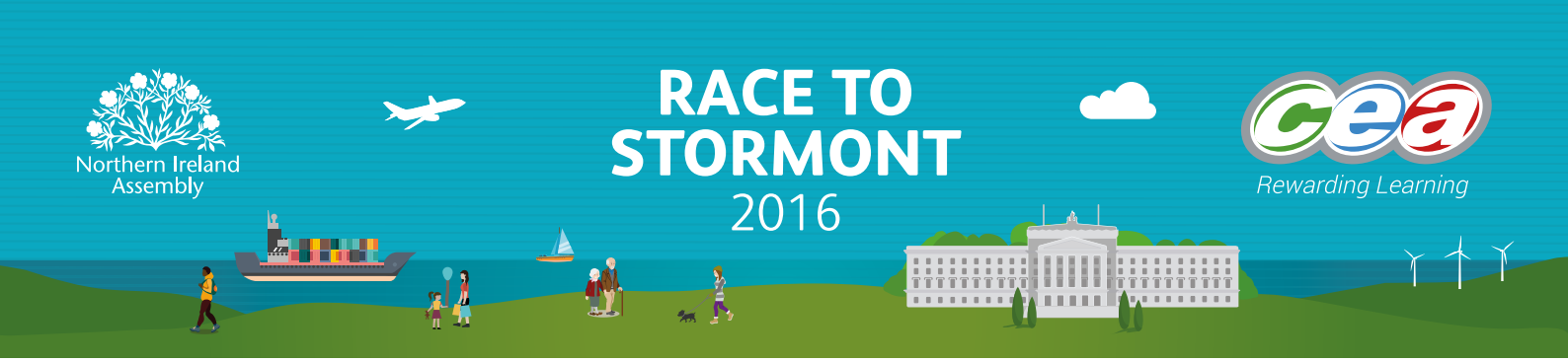
http://ccea.org.uk/sites/default/files/docs/curriculum/area_of_learning/learning_life_work/employability/ks3_employability.pdf



Note: there are resources available in the WOW Factor materials that can be used to set up the class for looking at the Assembly videos relating to employability or used as an extension activity afterwards: *http://ccea.org.uk/curriculum/key_stage_3/areas_learning/learning_life_and_work/employability*

Year 10
Unit 1: Reap the Rewards
Contains materials on the various forms of qualification available and looks at the meaning and significance of qualifications.
Unit 2: My Choices
Looks at post-14 choices and ways to decide on which subjects to continue with.
Unit 3: It's All About You
Invites pupils to consider their own skills mix and strengths and weaknesses.
Unit 4: Work Smart
Looks at health and safety, creativity, innovation and teamwork.
Unit 5: The New Age of Employment
Looks at influences of technology and changing patterns of employment and careers.

There are also WOW Factor materials available targeted at years 11 and 12 of KS4



Introduction

A major concern of any government must be the health of the local economy. This includes the current state of the economy, future projections for growth, infrastructure (transport, telecommunications, built environment etc.), continuity and availability of skilled personnel to join the workforce.

Watch and listen to what Tom Buchanan, Deputy Chair Committee for Employment and Learning, has to say about issues that are of concern to the committee at the moment.

- What issues are concerning the committee at the moment?
- What cuts to the budgets for Further and Higher Education are happening?
- What is the difference between Further Education and Higher Education?
- What are the issues associated with student fees that Tom Buchanan draws attention to?
- Where does he suggest there are skills shortages experienced by employers?
- What does he suggest young people could consider as they plan their routes into employment?

Compare the concerns expressed from the Employment and Learning Committee with Patsy McGlone's report of the situation as seen from the perspective of the Committee for Enterprise, Trade and Industry.

- What does the committee want to see in terms of school leavers, graduates and people qualifying from FE Colleges?
- What is the role of business and industry in relation to universities, colleges and schools?
- Who would the committee like to see filling jobs?
- Why is the mobile phone network seen as an important consideration?
- What are the problems with the electricity grid?
- Where are there similarities between the concerns of the Committee for Employment and Learning and the committee for Enterprise Trade and Investment?

Aim: to extract from Tom Buchanan's account a sense of the issues the committee is concerned about, and in particular to take up the remarks about the skills shortages testified to by business and industry and use this as a focus of looking at the idea of the knowledge economy and how a knowledge economy means for future career prospects.

Aim: to take from Patsy McGlone's account a sense of the close ties between education, skills and qualifications and the needs of business and industry. Based on this recognition, to explore the question of skills shortages and the implication of opportunities for suitably qualified and skilled employees. Contrast the need for high-skilled, well-qualified entrants into the workplace with the lack of demand to be seen for low-skilled jobs and reduction in number of jobs available for people without relevant qualifications.

Activity: The Knowledge Economy; What is it and how will it affect me?

Before going on to investigate in more detail some of the issues about different routes to qualifications and employment that Tom Buchanan and Patsy McGlone draw attention to, find out more about how apprenticeships and technical qualifications work in other European countries.

These websites will get you started:

http://www.oecd.org/edu/skills-beyond-school/skills-beyond-school-Austria-Gemany-Switzerland.pdf

http://www.make-it-in-germany.com/en/for-qualified-professionals/working/business-etiquette

http://www.make-it-in-germany.com/en/for-qualified-professionals/training-learning/training/vocational-training-in-germany-how-does-it-work

In the video of Tom Buchanan he mentions Higher Apprenticeships. This is an alternative to university study that is become a more common alternative route to good employment prospects.

For a long time apprenticeships have been offered at Intermediate level (equivalent to 5 GCSEs), Advanced, (equivalent to 2 A levels) and Higher, which ranges from HNC level (Higher National Certificate, through HND (Higher National Diploma) and up to equivalence to a degree level qualification depending on the length of the apprenticeship.

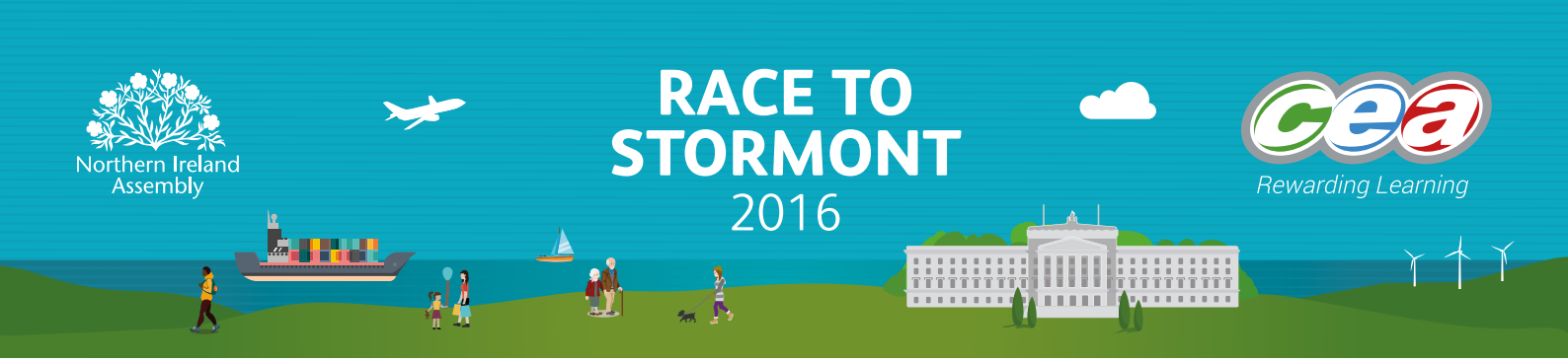
Usually, applicants wanting to take up an apprenticeship will have to have qualifications at a level that will prepare them for the level of study and learning associated with the apprenticeship. For example, those wanting to follow a Higher Apprenticeship will have 'A' levels, and choose an apprenticeship route rather than going to University.

There are several reasons why a school leaver might prefer to follow an apprenticeship rather than go on to academic study.

- You don't incur the same debts as result from taking out a student loan
- Most apprenticeships offer the possibility to earn a wage while learning on the job
- Apprenticeships are associated with a company running the scheme in partnership with a local college, and completing the apprenticeship can lead straight in to full-time job
- The focus of the apprenticeship is on acquiring practical skills that can be immediately applied

The employment prospects for University graduates are far from as secure as once was the case. Depending on the subject of a graduate's degree, they may not be able to find work that is related to their area of study. Only those graduating in Maths, Computer Science and Science and Engineering subjects are likely to be highly sought after by employers because there are significant shortages in these areas. Even medicine and law are over-supplied other than in niche areas such as general practice in medicine and commercial and international law.

Find out more about apprenticeships here:
http://www.apprenticeshipguide.co.uk/higher-apprenticeships/



Levels of Success: The potential of UK apprenticeships

The perceived lesser value of apprenticeships compared to degrees appears to be an ingrained part of UK culture, as ComRes polling and Oliver Wyman research for this report suggests.

This perception extends to teachers and parents, who usually favour degrees over apprenticeships for their students/children. This needs to be addressed, but can only happen in unison with reform of the apprenticeship system.

Other countries, particularly Germany, Austria and Switzerland, have more effective apprenticeship programmes, in terms of both the quantity and quality of provision, and offer excellent examples of best practice.

http://www.suttontrust.com/wp-content/uploads/2015/10/Levels-of-Success3.pdf (page 2)

Levels of Success: The potential of UK apprenticeships

In Germany, the culture around apprenticeships, particularly as they relate to university degrees, also differs from the UK. A recent report by the German federal statistics agency, Destatis, stated that the proportion of those starting an apprenticeship eligible to attend university has almost doubled in recent years.

"Reasons for the increasing preference for the vocational training among those qualified for university include the desire for more practice¬ orientated training, which is not covered by university courses".

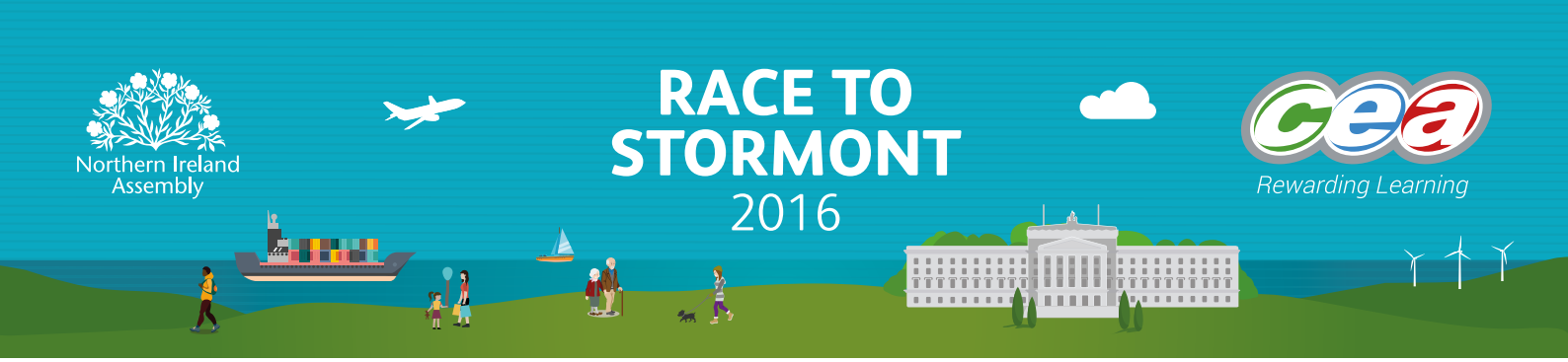
Again, the higher demand for apprenticeships is partly cultural, partly based on a rational economic decision by young people in a country where the apprenticeships provided are excellent.

"In Germany... more than employers offer apprenticeships, compared with around 15 per cent in the UK. In these countries, apprenticeships are understood by potential apprentices as being an investment in their future, by employers as a means of achieving higher productivity, and by wider society as valuable for young people"

http://www.suttontrust.com/wp-content/uploads/2015/10/Levels-of-Success3.pdf (page 23)

Key Questions:

- What qualification is considered the best route into employment in the UK?
- How does this differ from routes to employment in the rest of Europe?
- How long do you have to attend university to qualify for a degree?
- Do all university degrees take the same time?
- How long does it take to complete an apprenticeship?
- What sorts of employment can you qualify for by following an apprenticeship?
- What sorts of apprenticeship are available?
- What's the difference between an apprenticeship and a degree qualification?
- In what areas of the economy are there most job opportunities?
- What do employers want their new recruits to be ready to do?



Activity: Investigating Alternative routes to skills, qualifications, and employment

In pairs, check out these links and make some notes about what you find. Look out for some of the words below. Then in your group write out your answers to the questions that follow.

Knowledge Economy

https://en.wikipedia.org/wiki/Knowledge_economy

Information Age

https://en.wikipedia.org/wiki/Information_Age

Oversupply

https://en.wikipedia.org/wiki/Overproduction

Globalisation

https://en.wikipedia.org/wiki/Globalization#Economic_globalization

Qualifications

https://en.wikipedia.org/wiki/Qualification

Soft Skills

https://en.wikipedia.org/wiki/Soft_skills

Employability Skills

https://en.wikipedia.org/wiki/Employability

Offshoring

https://en.wikipedia.org/wiki/Offshoring

Innovation

https://en.wikipedia.org/wiki/Innovation

Service Sector

https://en.wikipedia.org/wiki/Tertiary_sector_of_the_economy

Economy

https://en.wikipedia.org/wiki/Economy

STEM Subjects

https://en.wikipedia.org/wiki/Science,_Technology,_Engineering,_and_Mathematics

Interdisciplinary

https://en.wikipedia.org/wiki/Interdisciplinarity

Skills Shortage

https://en.wikipedia.org/wiki/Structural_unemployment

Supply and Demand

https://en.wikipedia.org/wiki/Supply_and_demand#Other_markets

Growth

https://en.wikipedia.org/wiki/Economic_growth

National Qualifications Framework

https://en.wikipedia.org/wiki/National_Qualifications_Framework#England.2C_Wales_and_Northern_Ireland

Higher Apprenticeship

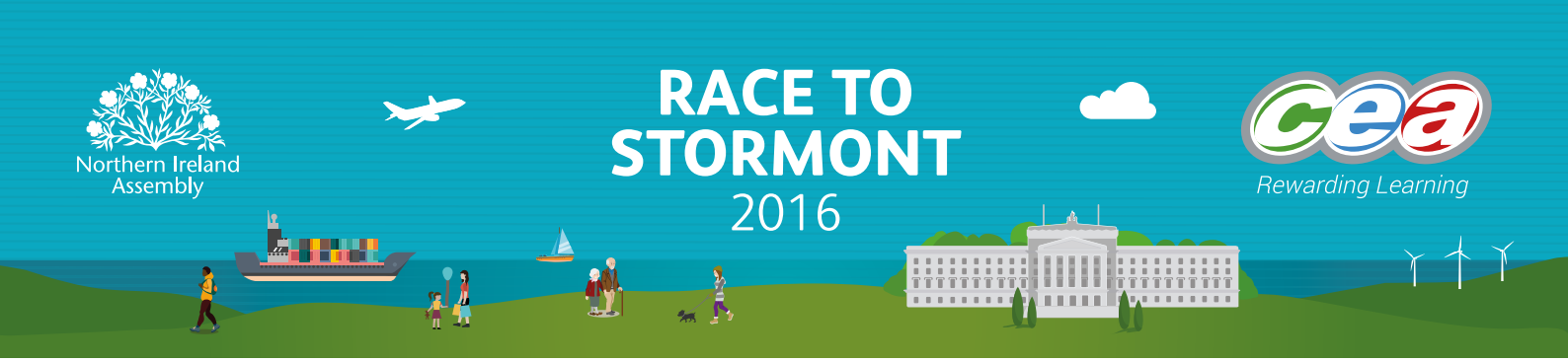
https://en.wikipedia.org/wiki/Apprenticeship#Structure_of_apprenticeships_in_2000s

Technical and Professional Qualifications

https://en.wikipedia.org/wiki/Vocational_education

Further and Higher Education

https://en.wikipedia.org/wiki/Tertiary_education



Key Questions

- What has changed that means that there are now fewer jobs available that you can do without a qualification?
- Why are qualifications in STEM subjects sought after by employers?
- What are the main sectors of the economy in Northern Ireland?
- What impact has new technology made on the way companies do business?
- What's different about an apprenticeship and a degree?
- What is vocational education?
- Why might having a degree not be a guarantee of a job, even after 3 or more years study?
- Why do businesses move parts of their operation tom other countries?
- In what areas are there shortages of qualified people?
- What could a business do if it can't recruit the people it needs by placing an advert in the local paper?
- Why do businesses constantly need to improve what they do, and what do they do to stay competitive?

Share your findings with the rest of the class and pool all the information pairs or groups have found. Use what you have collected to make a summary of what employers are looking for when they recruit for jobs. Use this to help you decide what to do as you make plans for your careers research.

Sources

Knowledge Economy

Talking about 'the knowledge economy' has become a common way to express the idea that our economic system has changed. The idea of a 'modern' economy started with the change from an agrarian (farming) economy in the late 18th century (from around 1750 onwards) to an industrial (manufacturing) economy. This was the period of the industrial revolution.

Historians and economists say that the economy changed again some time after the Second World War, when industrial growth began to slow down. Several changes were taking place from the 1950s and through the 60s and 70s when there was a change towards businesses using new technologies to automate manufacturing processes. There are several reasons given for why this change happened. A big difference from before WW2 compared to after, was that the war drove countries to invent new things as they tried to defeat each other. For example, it was during this period that computers were invented, nuclear power was developed as a spin-off technology from the atom bomb, and the rocket technology that eventually was used to launch satellites and land men on the moon was developed.

After the war there was a period of easier connection between countries as air travel became cheaper and much more common. Previously, most people travelled between countries by ship, which took weeks rather than hours. The combination of easier links between countries and advancing use of technology, particularly computers, led to companies carrying out their business in many countries. This is called globalisation.

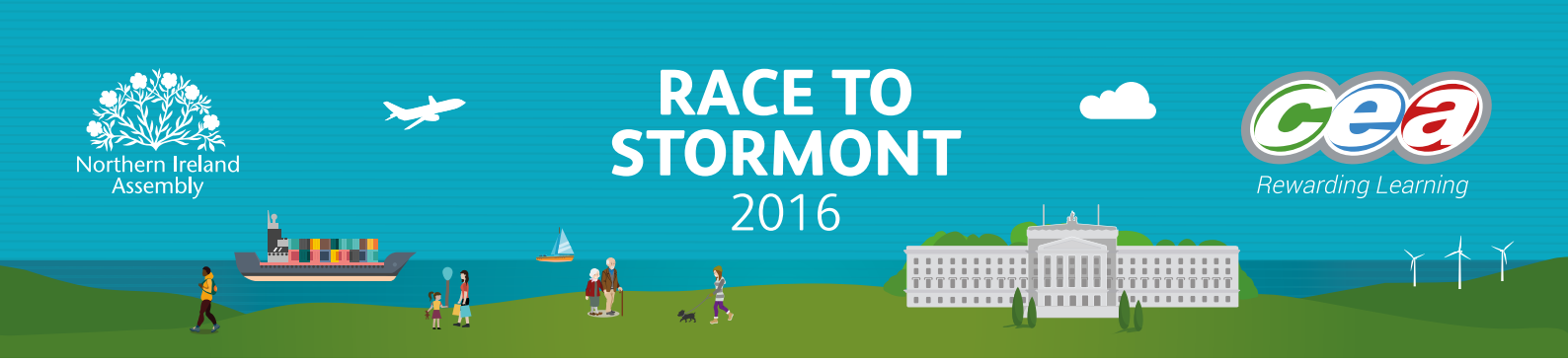
All of these changes combined to result in many businesses and industries making their profits from using digital technologies and basing themselves in countries where labour costs are cheap. The effect of these changes has been that a lot of the jobs that were once done in the countries of Europe and America are now being done in India and China and other countries in Asia and the Far East.

As a result, there have been changes in what local businesses and industry now do. Mainly the change has been towards jobs that use advanced technologies and require well-qualified and highly-skilled workers in order to be successful.

This change from a traditional manufacturing economy and heavy industry to a situation where companies develop new products and services based on invention and innovation is called the knowledge economy. For example, many people in Belfast used to be employed in ship-building and did jobs that involved building ships using metalworking techniques that were done by hand or using large machines. There are very few people still employed in that kind of heavy industry any more, and the remaining shipyards in Belfast now concentrate on repairing and refitting, not building ships. Contrast that situation with Silicon Valley in California, home of Apple and Google, where companies employ highly-trained people who use software to make products, not metal and rivets.

Key Questions

- Name three companies that were originally based in the United States of America, but now operate in many countries of the world.
- Name a local company or a business based originally in the United Kingdom, which is well-known world-wide.
- Why were the earliest computers built at Bletchley Park during WW2?
- What sources of energy were used to power the newly invented machines used in manufacturing during the early industrial revolution? (Hint: think weaving and transport)
- Why do you think companies chose to shift their manufacturing base away from centres in Europe, and instead set up factories in Asia?



Offshoring

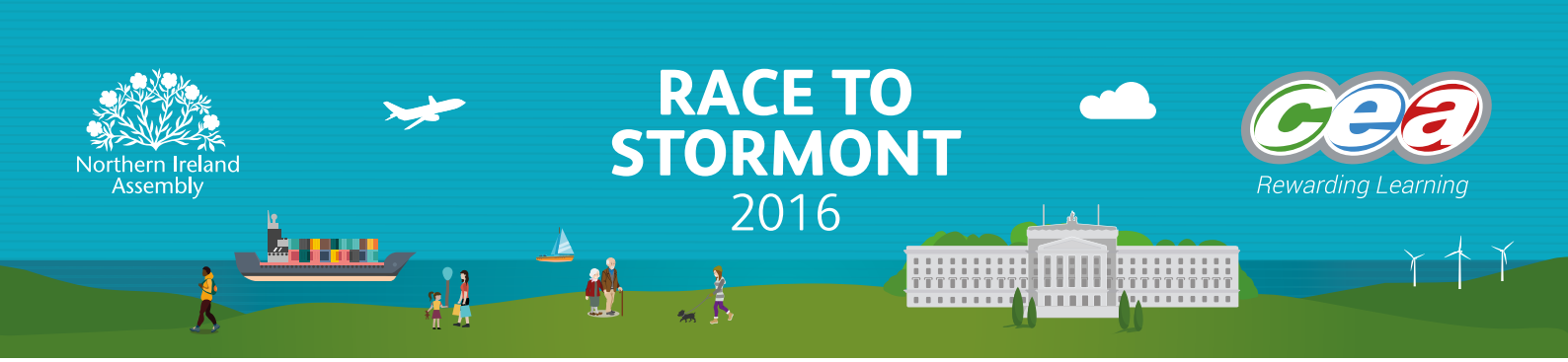
Some countries in the world are described as rich countries, some as poor countries, and those that are very poor are sometimes called Third World Countries. Economists and politicians talk about how rich a country is in terms of a figure called GDP. GDP stands for Gross Domestic Product. GDP is a measure of how much money all the businesses and industries of that country have made by selling their products. The money becomes part of a country's wealth through the taxes that companies pay to the government and the wages they pay their workers.

It's important to understand that the products here are not just goods that a company makes and sells. Companies and countries trade in all sorts of things. Think of tourism, the film and television industry or banking: often the profit of a business comes from services they provide not physical commodities they sell. Sometimes these products are called 'intangibles' because they are real and have value that can be traded or sold, but are not a thing like a loaf of bread or a car that can be physically touched.

Whatever sector a business is involved in, it has to have something it can sell that customers want to buy. Otherwise, it will go out of business. There are two important things that make customers buy a product: it must be something they want or need, and it must be cheap enough for them to afford. If the cost of making their product goes up, the business will have to charge their customers more. If the product becomes too expensive, there is a risk that people will stop paying for it. For this reason businesses have to keep costs down. One of the biggest costs a business has is paying its workers. If it is cheaper to move the business to another country because wages are lower, then many businesses will do so. This is called 'offshoring': if you started out in one place, and maybe keep your headquarters there, but have most of the work done abroad, that is an example of offshoring.

Key Questions

- If a company started out making and selling shirts in Northern Ireland, but found it could get the shirts made cheaper in Pakistan, what effect could the shift have for its workers here who would lose their jobs?
- What does the expression 'cost of living' mean, and why might it be greater in Northern Ireland than in Pakistan or Thailand?
- Can you think of any downsides that might be faced by a company if they decide to move part of their operation offshore?
- What other examples can you give of businesses or industries that are concerned with services rather than physical products?
- Are there things that can't be offshored to places where the costs are cheaper? Why?



Globalisation

Globalisation is a word used to describe the situation where the borders between countries stop mattering for some purposes. Talk about globalisation is usually to do with trade between countries. For example, when a foodstuff is grown in one country and transported to another country where it's sold in supermarkets, that's trade: a supermarket in one country buys bananas or tomatoes from farmers in another country. It used to be that some fruits and vegetables were only available at the time of the year that the crop was in season. For example, you could only get strawberries in the summer. Later, when the cost of transporting perishable goods like fruit by air became much cheaper, supermarkets could import strawberries from other countries where they were still in season and so sell strawberries all year round.

That easy movement of people and goods around the world is one aspect of globalisation. Another is the ease with which companies can also move money to pay for what they trade in. It used to be that a business would go to their bank, and the bank would have to take an order for the currency of the country the business wanted to buy from. The cost of the goods would be converted into the price in that currency (the exchange rate), and the bank would then send the banknotes to a bank in the other country. That changed with advances in telecommunications, which now mean that deals can be done electronically, and the money is transferred automatically using an exchange rate that can change from hour to hour. Most of these advances in telecoms have been as a result of two new technologies: firstly, better cables, such as fibre-optic, carrying the phone lines undersea; and, secondly, computerisation of records and communications. Even in the 1970s (only 40 years ago), making a simple phone call to another country in Europe involved ringing the operator, booking a time for the call, and the operator ringing you back to place the call. Now with international dialling codes and mobile phone networks, you just call anyone you like whenever you want, more or less anywhere in the world and you'll be instantly connected. This connectedness is another aspect of globalisation: you don't have to be there to do a deal, you can do everything remotely using a phone or a computer.

A third feature of globalisation has been the change in trading agreements between countries. It used to be that you weren't allowed to move money between countries without government restrictions. That's still true to an extent: there are taxes, exchange rates, import duties and other limits, but in general it's now much easier to trade across international borders even if there is sometimes a cost to do so. This has led to companies changing the way they do business. They may have some parts of their product made in one country, other parts made in another country, and have the whole thing assembled in a third country, from where it is shipped out to be sold all over the world.

Something similar has happened in terms of what ordinary people know about other countries. Up to the 1960s very few people took holidays abroad. Now it's accepted and easy to take a trip to another country. Just as people have been able to move about, so have their interests and cultures. An example of this is how the food of many countries is now available in restaurants. In Belfast you'd have no difficulty finding restaurants that specialise in any number of cuisines: Indian, Italian, Spanish, Mexican, Japanese, Vietnamese, Thai, Chinese … This increased familiarity with other countries and peoples is sometimes referred to as making the world into a 'global village' - meaning that, as it has become easier to move between places, everything becomes more 'local' and familiar, more like living in a small village where everyone knows each other than being separated by huge distances.

Key Questions

- Do you like Chinese food? What food have you eaten that is associated with a particular country? Name as many as you can and say what are the recognised features of that style of cooking.
- What is the currency of the UK?
- What is the currency of the US?
- What is the currency of Germany?
- What is the exchange rate? Give an example of one.
- How do telephone calls go from here to the US?
- What is fibre-optic cable made from?
- Why might one country charge another country an import duty on goods it wants to sell there?
- Name some seasonal fruit and vegetables, and the seasons that they are usually associated with.

Extension Activity: What route to skills and qualifications will suit me?

Look at the Skills Barometer materials in the links below. What issues are there in terms of prospects for future employment, subject demand? What are the implications for young people as they make their career choices?

Compare how technical and professional (vocational) qualifications are seen in other European countries such as Germany, and how they are viewed in Northern Ireland. If you don't have to follow an 'academic' route to succeed, what alternatives through FE and apprenticeship routes are available?

https://www.delni.gov.uk/sites/default/files/publications/del/NI%20Skills%20Barometer%20Summary%20Findings%20Report%20241115%20Issued.pdf

https://www.delni.gov.uk/sites/default/files/publications/del/Skills%20Barometer%20-%20Launch%20Presentation%20241115%20-%20Issued.pdf

https://www.delni.gov.uk/publications/ni-skills-barometer