

Dam Burst

Learning intention

- To recognise the skills required for the future jobs and to recognise the skills in themselves.
- To gain a better understanding of the skills of creativity and adapting.

Success criteria

- I can discuss the relevance of skills to the wider world and make connections between skills and the world of work.
- I can recognise the skills I have and need for work.
- I can apply my skills to get more information about jobs/careers.

Activity 1 (background information)



Bridges To Prosperity

Activity 1 (discussion)

Rural isolation is a root cause of poverty; connection is the foundation for opportunity.

Bridges to Prosperity design, build, and maintain durable and environmentally sustainable bridges to connect the rural last mile to the rest of the world.

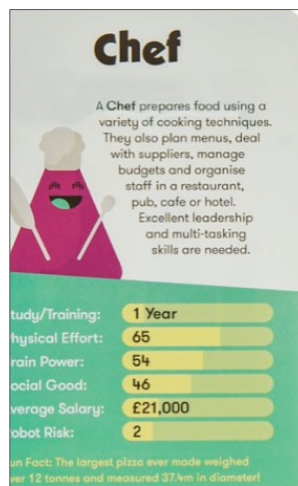
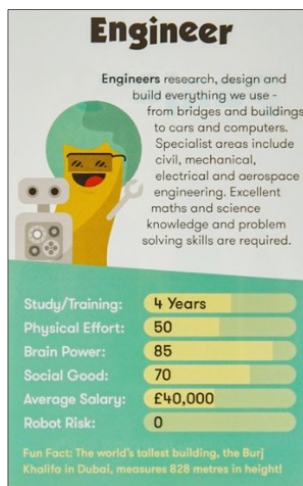
- What do these words/phrases mean?
 - Durable
 - Environmentally sustainable
 - Collaboration

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Activity 1

Think of what jobs you might need to build a bridge and write them down.

Make up your own jobs cards for the jobs you identify.



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Each of the cards should have the following information

- Job description
- Study/training (years)
- Physical effort (1 to 100)
- Brain power (1 to 100)
- Skills required (top two skills)
- Robot risk (1 to 100)
- Relevant school subjects (identify two)

Activity 2 (Discussion)

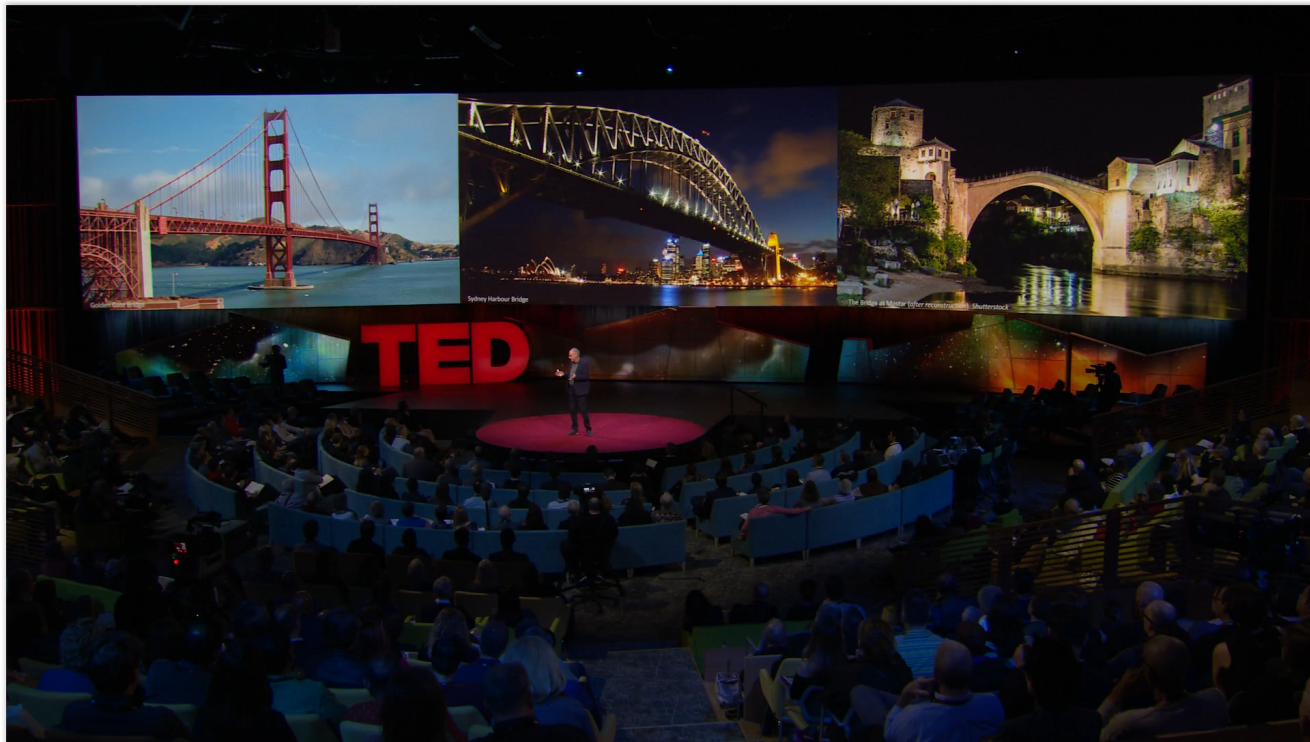
What do you think each of these mean?



- Community Growth and Development
- Creativity
- Connectivity
- Ingenuity
- Identity
- Stagnate
- Bending Bridge
- Compression Bridge
- Tension Bridge

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Activity 2 (video)



Ian Firth – Bridges Should Be Beautiful

Activity 2 (video questions)

1. Why does the world need bridges?
2. What happens when bridges fail or are destroyed in conflict?
3. How many people around the world do not have the same basic things that we take for granted? For example, medical care, access to markets, education.
4. What are the oldest bridges made of and why?
5. What is the bridge in the mountains in Peru made of?
6. What are the 3 types of bridges?
7. What is Galloping Gertie?
8. How long is the longest bridge at the moment and where is it?
9. How do you build a bridge in deep water?
10. How many years do they build a bridge to last for?

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Activity 2 (video answers)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 1. Why does the world need bridges? | A: They're essential for growth and development. |
| 2. What happens when bridges fail or are destroyed in conflict? | A: Communities struggle, development stagnates, people suffer. |
| 3. How many people around the world do not have the same basic things that we take for granted? For example, medical care, access to markets, education. | A: The 1 billion. |
| 4. What are the oldest bridges made of and why? | A: Stone because it was durable. |
| 5. What is the bridge in the mountains in Peru made of? | A: Grass. |
| 6. What are the 3 types of bridges? | A: Bending, Compression, Tension. |
| 7. What is Galloping Gertie? | A: A suspension bridge that fell down. |
| 8. How long is the longest bridge at the moment and where is it? | A: 2000 meters – Japan. |
| 9. How do you build a bridge in deep water? | A: You make it float |
| 10. How many years do they build a bridge to last for? | A: 100 years |

Activity 3 (discussion)

Using the skill of creativity

- Can you think of different materials to build a bridge from?
- What could you come up with a bridge design for a bridge from Scotland to Ireland?

Activity 4 (group work)

Using the skill of adapting

- If you were in charge of designing a bridge and you could not get the material that you needed - what would you do?
- If you designed a dam and you realised it wasn't going to be strong enough to hold back the river what would you do?
- If you were in charge of building a new road and a bridge from Scotland to Ireland.
 - What jobs would you give people to do on and why?
 - What would you do if the sea was much deeper than it used to be?

Activity 5 (classroom discussion)



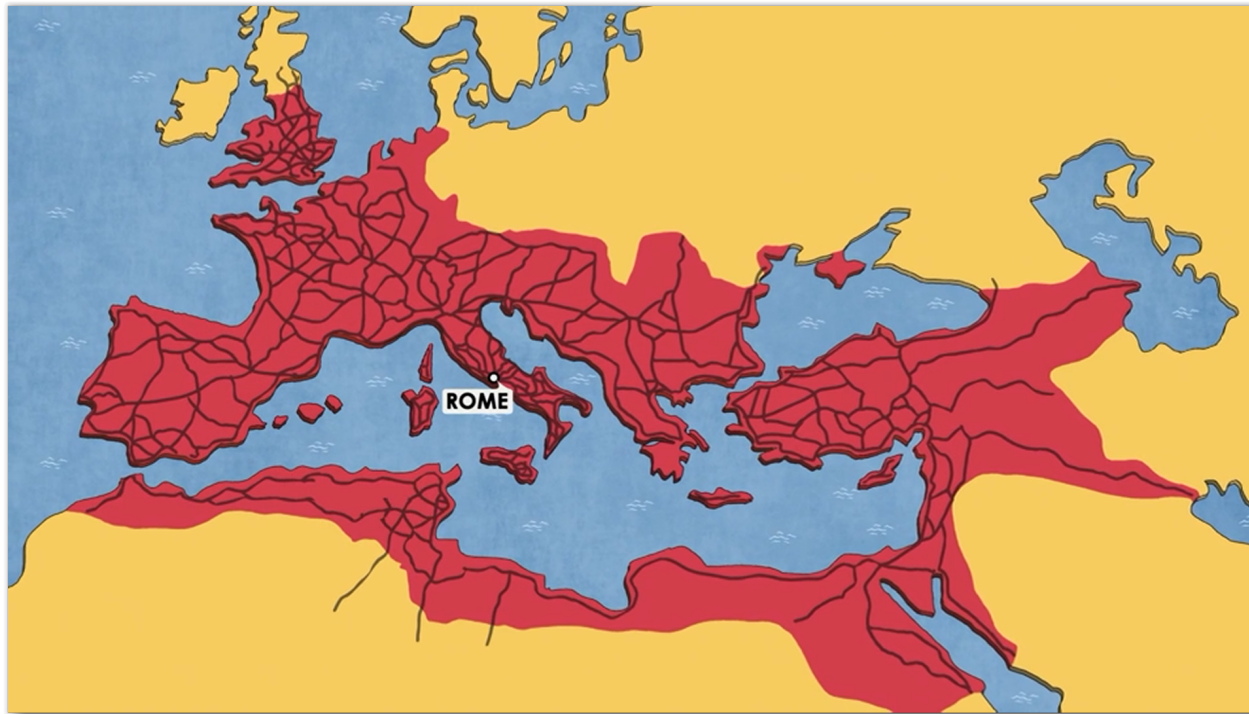
Hill Forts

Creativity and adapting

How did the Celts use their skill of adapting?

How did the Celts use their skill of creativity?

Activity 6 (classroom discussion)



Roman Roads

Creativity and adapting

How did the Romans use their skill of adapting?

How did the Romans use their skill of creativity?

Next Steps



Go to myworldofwork.co.uk/ican and use Skills Story - Dam Burst Story and then you can update the Skills section in your Profile to record the skills you have used taking part in this activity