Further reading

Here are some resources that students taking part in the ICE CityZen Award might find helpful. These are given in the game at the end of each round.

Week One

Find out about the real costs of bridges here:
https://www.teachengineering.org/lessons/view/cub_brid_lesson05

Learn how a bridge can have real social benefits:
https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/peace-bridge/

See how a bridge led to economic regeneration in the North-East:
https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/humber-bridge/

How to be more inclusive in design:
https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/telford-footbridge-replacement

Week Two

Find out how biogas is created and used:
https://www.nationalgrid.com/stories/energy-explained/what-is-biogas

Read about the redevelopment of the Connswater Community Greenway:
https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/connswater-community-greenway/

Learn about the role of civil engineers in The London Olympics:
https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/the-london-olympics

Week Three

Learn more about net zero and how civil engineers are leading the way:
https://www.ice.org.uk/news-and-insight/latest-ice-news/shaping-zero-watch-the-film

The Designing Buildings Wiki provides a wealth of information on the design of sustainable housing: **https://www.designingbuildings.co.uk**

The Waterbeach housing development in Cambridge is a great example of sustainable design using nature-based solutions:
https://www.ice.org.uk/what-is-civil-engineering/infrastructure-projects/waterbeach

See how '20 minute neighbourhoods' offer improved and more sustainable lifestyles:
https://www.newcivilengineer.com/latest/20-minute-neighbourhoods-bringing-life-back-to-our-empty-town-and-city-centres-29-03-2021/

Learn more about the role of archaeology in the planning process:
https://www.wessexarch.co.uk/archaeology-planning-process

Find out about hydropower and marine energy development in the UK:
https://www.ice.org.uk/areas-of-interest/energy/hydropower-marine-energy

Find out about hydropower and marine energy development in the UK:
https://www.ice.org.uk/engineering-resources/briefing-sheets/hydropower-marine-energy

Week Four

Information about UK climate extremes from the Met Office: **https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-extremes**

This is a great example of how civil engineers protected a community from flooding: **https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/delta-works/**

Learn about flooding and coastal change: **https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather**

Find out how the JBA Trust help understanding and management of risks in the water environment: **https://www.jbatrust.org**

About the ICE CityZen Award

The ICE CityZen competition is an easy to run, structured activity for 16-18 year olds which is often supported throughout by an ICE STEM Ambassador.

It takes place yearly in the autumn term and makes an ideal extra-curricular activity for students making critical decisions about their futures.

The competition is in two parts:

A digital game played over 4 one-hour sessions

A Project Pitch video for students to present their idea of how civil engineering could be used to improve their local environment.

Find out more: **ice.org.uk/cityzen**

V1 2026