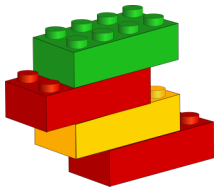


Structures

Specific focus: Skyscrapers

W/C: 1st June 2020

This week we are learning about skyscrapers. A *skyscraper* is a high-rise building that has over 40 floors and is taller than approximately 150 m (492 ft). Some of the most famous famous buildings in the world are skyscrapers.

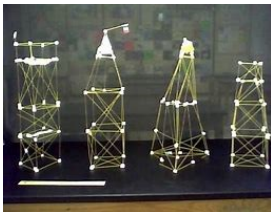


Subject: DT

Activity Outcome: To create a freestanding structure by joining materials.

Explain: Skyscrapers are wonders of Engineering. They are only possible because of the work of very clever engineers who design them to stay up in strong winds and even earthquakes!

Your challenge is to build a tower that is at least 1 metre tall using spaghetti and marshmallows!



(If you don't have these items, it is super easy to swap in other materials like straws and plastercine!)

See page 2 for more details.

Subject: ICT

Activity Outcome: To use a search engine to find answers.

Explain:

Use kiddle to research famous Skyscrapers. Can you answer these questions? <https://kids.kiddle.co/Skyscraper>

Which one is the tallest? Where is it?

What is the tallest skyscraper in the UK? Where is it? How tall is it?

Which was the first ever skyscraper?

What other amazing facts can you find about skyscrapers?

See what facts you can find on this site.

Subject: Art

Activity Outcome: To use silhouettes to create skylines.

Explain: Skyscrapers take over the sky and that give cities distinctive shapes. These are often best seen at sunset when the buildings darken against the sky and their shapes are really clear. This can be really beautiful to look at.

We are going to make Skyline art pieces. See Page 3 for further details.



Subject: Geography

Activity Outcome: To explore world maps and use them to plot information.

Explain: We are going to put the below skyscrapers on our World map (see page 4). To do this, you will need to research what country these structures are in and then find this on your World map. You then need to draw on a spot and label it clearly. (If you cannot print this, try doing this as discussion activity—pointing and showing an adult where to put these buildings).

Suggested websites: <https://www.touropia.com/iconic-skyscrapers>

Skyscrapers to plot:

1. Burj Khalifa
2. Empire State Building
3. Shanghai Tower
4. The Gherkin
5. The Petronas Twin Towers.

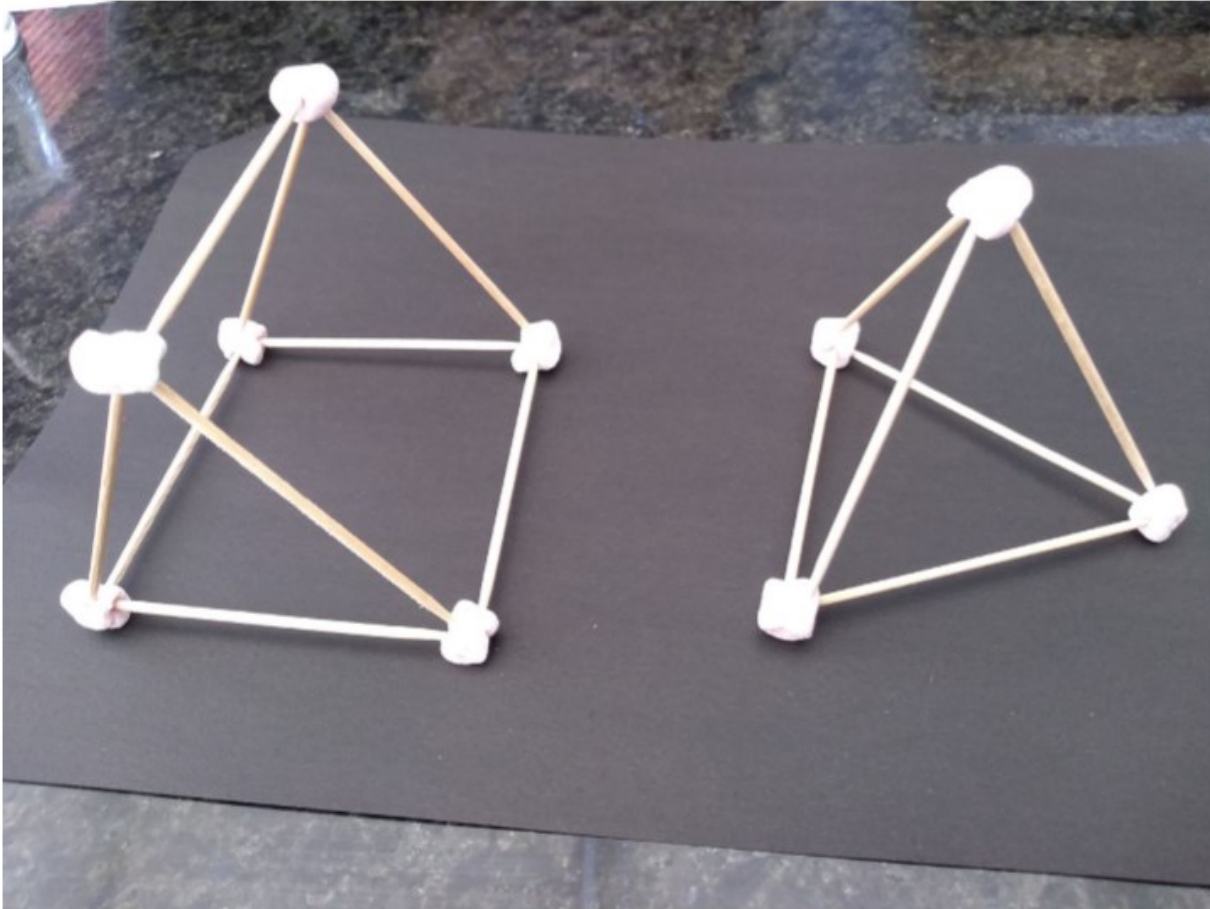
Spaghetti skyscrapers

You will need:

Spaghetti or straws Marshmallows or plasticine cardboard some pennies

Activity instructions

Start off by experimenting by making different shapes, using the spaghetti to pierce the marshmallows and join up with other sticks of spaghetti.



You can break the sticks of spaghetti into different sizes to try different shapes. **Top tip: triangles are a very strong shape that civil engineers use when building bridges and towers.**

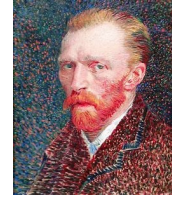
Once you have had a bit of time playing with different shapes you should now plan out how you are going to make your tower by drawing a diagram on a sheet of paper, civil engineers make sure they plan everything out in detail before starting to build anything to make sure they know what they are doing.

Once your planning is done, it's time to start building so clear a space (making sure all members of the household are taking care around your construction so dogs and cats might need to be shut out of the room for this activity!) and see if you can build your tower 1m high.

Test it out further:

- Blow on it! Can your structure stay standing in the wind? What about when you make the wind stronger by getting 2/3/4 people to blow on it!
- How strong is your tower? Add a small cardboard platform and see if your tower can hold items like pennies.

Skyline art



Even Vincent Van Gogh used the idea of sunset Silhouettes in his work. This is his painting of the houses of Parliament



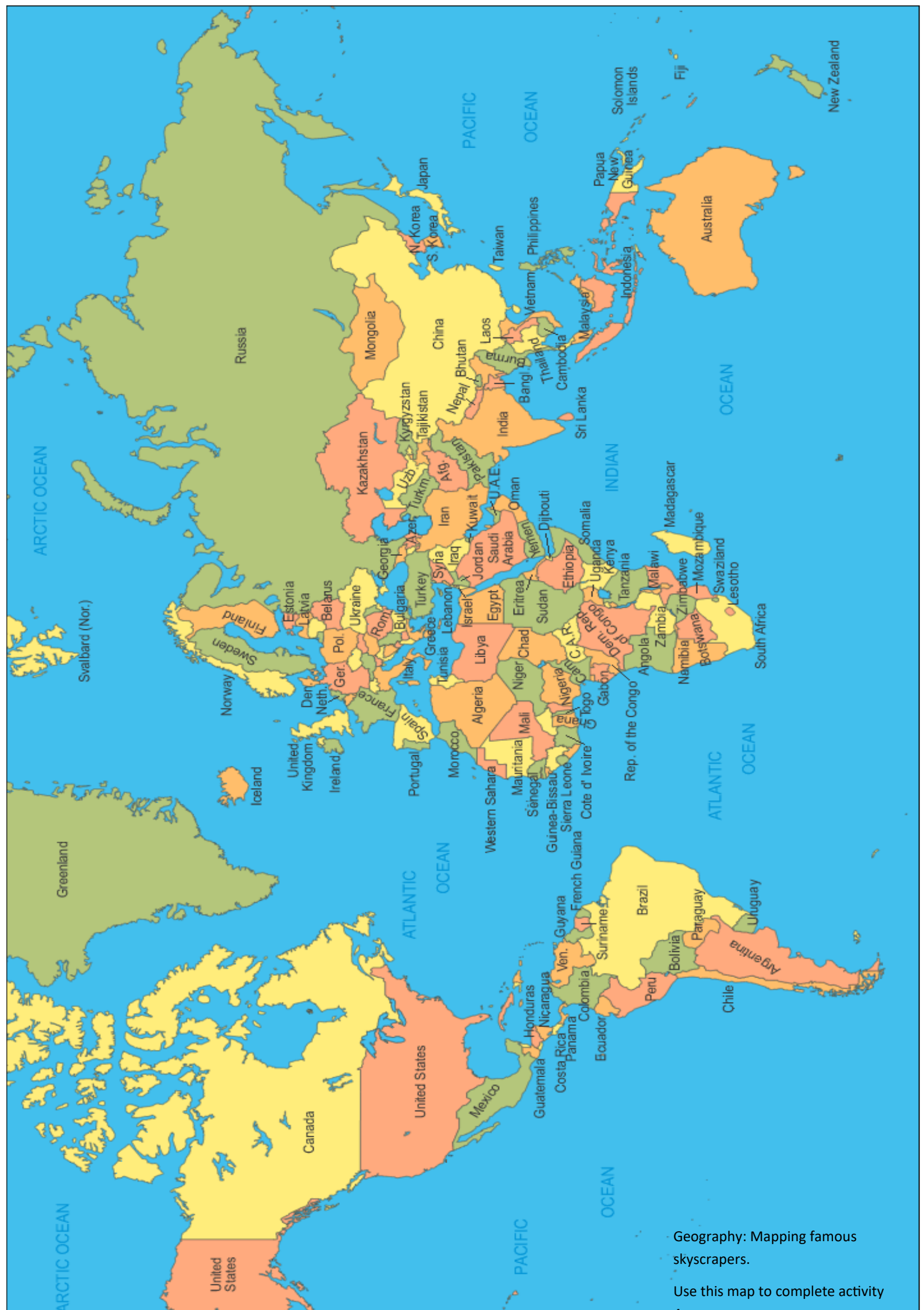
How to make sunset Silhouette art.

1: Create a colour wash that represents the sunset on your paper. This should cover your whole paper! You could do this using paint, chalk, pastels, wax crayons or felt pens. Sunset colours are usually reds, oranges and yellows but they can also sometimes have pinks and blues.

2. Make silhouettes of skyscrapers. These are the outline of the building with the middle coloured in black so that you only see the outside shape. You can do this by drawing them onto black card or you can draw them and colour them in with black felt.

3. Cut out your silhouettes, place them on your sunset at the bottom of the paper. Decide where you are going to put each one for effect. Try moving them around, which ones look best where? Then stick them down.

4. You should have your own beautiful sunset in the city!



Geography: Mapping famous skyscrapers.

Use this map to complete activity