




ENVIRONMENTAL ACTIVITIES

FOR KEY STAGE 2





**RSK IS A LEADING INTEGRATED
ENVIRONMENTAL, ENGINEERING
AND TECHNICAL SERVICES
BUSINESS.**

We provide end-to-end services to help organisations achieve their aspirations in a sustainable and efficient manner. We are working with a wide variety of customers in locations all around the world.

We are committed to supplying high-quality services for our clients while working to high environmental, health and safety standards.

We have put this resource together to introduce you to the world of environmental consulting and to help you with your educational journey.

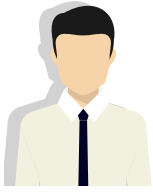


www.rskgroup.com

RSK

WHO ARE WE?

MEET THE TEAM



David is one of RSK's regional managing directors and makes the decisions about what projects RSK will work on in Ireland. David is a geologist, which means that he knows a lot about rock formations and how planet Earth is made up. At school, David really liked doing maths and geography, which have been very useful when he works on projects involving contamination in the ground, as he often has to recommend a remediation plan.



James is our consultant for acoustics, which is the study of sound and noise. James is helped by Aarron. Together, they measure how much noise is made by traffic, on construction sites and by people and machinery. They can help companies to make improvements to their buildings so that they do not disturb their neighbours. Both James and Aarron had to work really hard at maths and science at school to be able to do their jobs now.



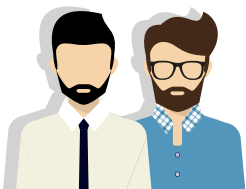
Michael leads the geoenvironmental (geo) team, which includes Paul, David McV, Shane, Ryan, Brian, Kevin, Oisín and Ethan. The geo team surveys sites that have been contaminated or are going to be used for new buildings. Their work includes taking samples of the soil and analysing to see if there is pollution or contamination in the ground that might be harmful to nature or to people. If there is something in the ground, it is their job to find a solution to make it safe. The geo team members are all interested in science, maths and geography.



Aisling, Bronagh and Rachel work as project managers. This means that, when RSK is working for a client, they make sure that all the different pieces of work needed are carried out at the right time. Aisling works with Nicholas and James; Rachel works with the geo team; and Bronagh's projects often involve asbestos, which is a substance that was used a lot in the past but can make people very ill if it is not removed from the ground and buildings. The project managers have really good English and literacy skills because they have to write lots of reports for our customers using computers.



Susan is our office manager and safety officer and has several very important jobs, including sending invoices to our customers so they can pay for our services, and checking that all our staff have completed safety training. Susan has a very special job in our office. As a mental health first-aider, she gives us advice if we are feeling sad or are having some personal problems. When she is not working, Susan loves to sail boats and spend time with her family.



Davey and Mike work in the sales and marketing department. Davey travels all over Europe to help our colleagues in other countries to find new customers. Davey loves art and dancing when he is at home. Mike's job is to find new customers all over Ireland and to talk them about how RSK can help them with their construction projects. Mike really enjoyed learning about history at school.



Nicolas is an ecologist. Ecology is all about living creatures and their surroundings, which means that Nicholas goes to lots of places looking for bats, badgers, otters and other protected animals. His job is to make sure the birds and animals are not being harmed when new building projects are being planned. Nicholas loves science but also studied zoology to learn all about animals.

EVERYONE CAN HELP THE ENVIRONMENT



It does not matter what you are interested in. When you are older, it is important to be able to use computers, to understand maths and English, and to know something about our planet – that is why we have made this booklet.

WORD SEARCH

Bronagh has written a report for a customer and she has lost some of her words. Can you help her find them in the grid below?

A	Q	U	I	A	O	T	H	P	U	P	C	B	I
S	E	G	R	A	S	S	E	S	S	M	E	N	T
B	P	E	P	I	L	L	O	T	E	B	V	O	E
E	C	O	L	O	G	I	S	T	S	E	R	I	S
S	Z	L	A	R	U	F	P	V	S	U	M	T	S
T	S	O	N	D	A	E	O	T	I	Y	L	A	N
O	U	G	T	y	G	V	I	W	C	N	A	N	O
S	B	Y	W	H	A	G	R	N	G	R	B	I	I
E	R	Y	E	H	A	T	A	N	T	I	O	M	T
T	I	E	X	T	K	T	V	A	O	Z	R	A	A
P	S	P	I	L	L	R	S	S	B	K	A	T	I
E	K	O	I	U	F	I	E	U	W	O	T	N	D
E	N	L	S	C	I	E	N	C	E	N	O	O	E
B	I	N	I	O	V	E	T	O	A	T	R	C	M
C	O	S	C	I	T	S	U	O	C	A	Y	N	E
C	I	S	U	R	V	E	Y	O	R	Z	E	N	R

See if you can find all 15 words in the grid above.

ACOUSTICS

ASBESTOS

ASSESSMENT

CONSULTANCY

CONTAMINATION

ECOLOGIST

GEOLOGY

HYDRO

INVESTIGATION

LABORATORY

REMEDIATION

RISK

SCIENCE

SPILL

SURVEYOR

Ask someone at home to test you on your spelling using these same words.

CONSULTANCY CALCULATIONS

1. Nicholas has to complete a badger survey today. He leaves the office at 9 am and drives 100 kilometres at 60 kilometres an hour to get to the site. He then spends three hours surveying the site. He also has to make two phone calls and send one email, which take 20 minutes. Nicholas takes half an hour for his lunch and then drives back to the office at the same speed as this morning. **What time will Nicholas be back in the office?**

2. Shane collected six soil samples on a city site today. Each sample weighs 0.85 kilograms. **What is the total weight in grams of all the soil samples?**

3. Some office workers were complaining about noise from a construction site yesterday. James used his equipment and recorded a noise level of 85.3 decibels. The noise should not have been more than 54.8 decibels. **How much noisier is the site than it should be?**

4. Aisling was speaking with a customer about a quotation that she sent last week. The customer really wants to use RSK for environmental consulting but said that the price, £2,130, was too expensive. Aisling agreed to give a 10% discount. **What is the new price?**

5. Michael has sent David to survey a site that has oil contamination in the ground. David recommends to Michael that they will need equipment to dig eight trial pits (holes) so that he can assess how much oil is in the ground. It takes 55 minutes to dig a trial pit and take a sample. **How long will this whole job take in hours and minutes?**

6. Ryan and Brian are helping a construction company with their waste materials. The company has 349 cubic metres of clay to be removed from site. If each lorry can remove 20 cubic metres at a time, **how many lorry loads are needed to clear the site?**

7. Bronagh has called Susan to ask her to order new safety clothing for a site. Susan tells Bronagh that the cost of the equipment is

Hi-visibility coat = £38.50

Hi-visibility trousers = £17.20

Work safety boots = £32.75

What is the total cost of all the equipment?

8. Paul is looking at an oil spill at a wind farm where one of the wind turbines has lost all its oil. During his investigation, he finds out that the total amount of oil in a wind turbine is 150 litres. Two containers with a total of 8,000 millilitres have already been filled with the spilled oil. **How many litres of oil are left to clean up?**

9. Oisín and Kevin have been sent to take soil gas readings on an industrial site. A grid has been set up to show them where to take the samples. If the client asks them to double the number of readings, **how many readings in total are required?**

X		X		X		X		X
X		X		X		X		X
X		X		X		X		X

MAKING MUSIC



Some of the RSK team members are thinking of starting a band.

When they are not working, Shane likes to play the accordion, Ryan plays drums and Brian is a really good banjo player. Davey likes to sing and Aarron manages the sound at music gigs. The band needs a name. Can you think of a really cool band name that has something to do with the environment.

Davey now needs some words for his songs. Can you help him to write the first four lines to his first song about helping the planet?

WHERE IN THE WORLD?

Match up these RSK office locations with their countries by drawing a line to connect the city to the country. If you need help, ask an adult or older brother or sister.



Hemel Hempstead

Warsaw

Leipzig

Ghent

Lyon

Milan

Dublin

Istanbul

Stirling

Aberystwyth

Poland

France

Wales

England

Scotland

Germany

Belgium

Ireland

Turkey

Italy

ENVIRONMENTAL FIELDWORK – A DAY IN THE LIFE

- 1.** It was a Monday morning and the RSK team members were all at their desks. Suddenly, the phone rang. It was Sam from Level 1 Architects. Architects are people who design buildings and help their customers to get planning permission to build houses, offices and factories.
- 2.** Sam needed urgent help. His customer, Joe Smith, wanted Sam to help him with an old warehouse that was “beyond repair”. Michael said that he would get the RSK team together for a meeting about the site and would swiftly call him back with a plan.
- 3.** Michael quickly assembled a project team, which included Aisling, Nicholas, David McV and Shane. Michael told them that, as it was an old, disused, industrial building, there might be some contamination in the ground. Nicholas told Aisling that it was highly likely that bats would be roosting in the building. Aisling agreed.
- 4.** Michael called Sam and said the team was on their way to survey the site and he would send him a proposal once the team reported back. Sam was delighted that RSK was acting urgently.
- 5.** When the team arrived at the warehouse, David McV and Shane took out their maps and divided the site into two. Shane would work in the northern half and David would work in the southern half to check for visible signs of contamination. Meanwhile, Aisling and Nicholas looked for evidence of bats and other species.
- 6.** The team was almost finished when Shane noticed an old oil tank concealed behind a wooden shed. Shane signalled to David to come over. When they looked, they could see that there were traces of oil in the surrounding area. They both agreed that further investigation was needed.
- 7.** Nicholas looked inside the warehouse and found recent bat droppings. He knew he would have to come back another day to look for bat activity at dusk and dawn, or when the sun had set and when it was about to rise again. Bats are nocturnal, which means they only come out at night, so it would have been impossible to be certain about bats being present during the day. Aisling also found an old sett, but there were no tracks to indicate that it was active.
- 8.** The RSK team packed up their equipment and drove back to the office. David and Michael discussed the contamination and Nicholas reported the time he would need to complete the bat study. Aisling checked the records for the area regarding badgers and found that there had been a cull there last year, so it was unlikely that any were present.
- 9.** Michael called Sam and told him that RSK could do everything that he needed to submit the planning application. Shane and David went back to carry out further investigations and were able to solve the problem with the oil spill.
- 10.** Two weeks later, the RSK project team had finished the surveys and had produced the reports. Susan sent Sam the invoice, which he promptly paid. It was another good project for another happy customer. Then the phone rang again...



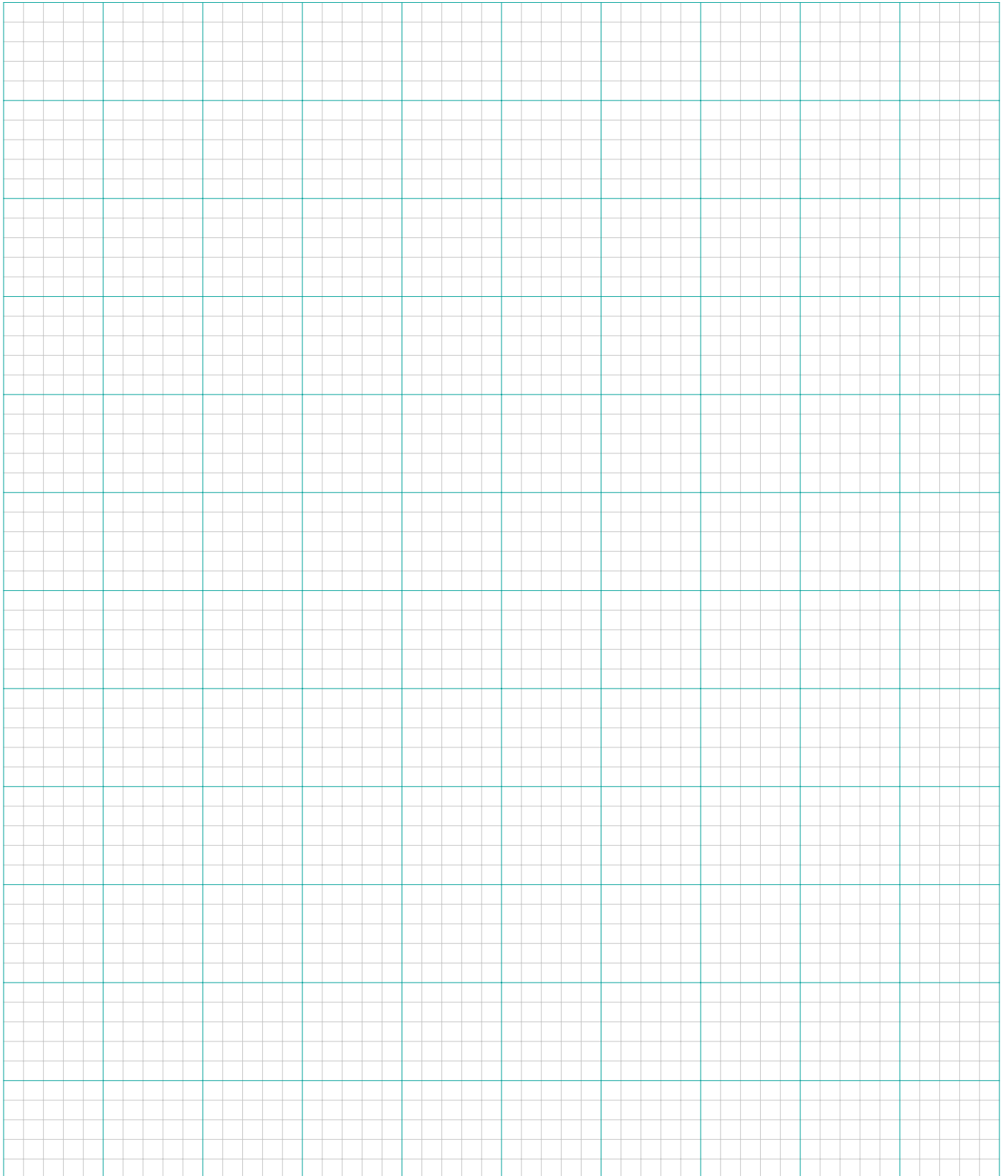
No.	Questions	Answer
1	In Paragraph 1, identify two proper nouns in the text.	
2	In Paragraph 2, which two words indicate that the warehouse was not able to be used?	
3	In Paragraph 5, can you find a word that has the same meaning as "different types of animals"?	
4	Paragraph 6 says "The team was almost finished". Write down another word to replace the word "almost".	
5	The word "concealed" is used in Paragraph 6. Think of another word that has the same meaning and write it down.	
6	There is a single word in Paragraph 7 that tells us that badgers might live in the area. Identify the word.	
7	In Paragraph 7 there is a pair of homonyms, can you choose the correct answer? (1) set and sett (2) dusk and dawn (3) night and day (4) set and sun	
8	Write the following five words from the passage in alphabetical order: survey, signalled, Shane, swiftly, southern 1. 2. 3. 4. 5.	
9	Bats and badgers are both animals that do not lay eggs. This type of animal is called a	
10	The words old, swiftly, customer and call are all used in Paragraph 2. Tick the correct box to show whether each word is a noun, verb, adverb or adjective.	

Word	Noun	Verb	Adverb	Adjective
Old				
Swiftly				
Customer				
Call				



SURVEYING SKILLS

Draw a map of your garden or a green space and mark out on the grid where you notice all the important pieces of the environment. These could be plants, animals, birds, streams or ponds.



Keep watching your green space because, as our seasons change, so do the plants and animals that we have in our environment.

TAKE THE RSK '5-A-DAY CHALLENGE'

Are you interested in helping the environment, but not sure where to start? Here is a week of activities to get you started.

Day	Challenge	Tick
MINIMISE MONDAY	Today is all about saving our natural resources and ways to reduce consumption. Can you find five electrical items in your house that you can switch off for 24 hours. Reducing how much electricity we use reduces carbon dioxide in our atmosphere. Ideas include TVs, computer games or tablets. If the weather is good, you could switch your heating off for a day.	
TRY AGAIN TUESDAY	Look around your house and find five things that you could reuse today. Maybe there are old clothes you have not worn in a long time or toys you have not played with. Try using them again today.	
WASTE NOT WEDNESDAY	Are there five things in your house today that you can recycle ? This might mean putting older items in the recycling bins or maybe you can find another use for older items. Odd socks make great sock puppets; used paper can be brilliant for making paper planes; or you could try to make new playthings with old cereal boxes.	
TRASHY THURSDAY	Identify five pieces of pollution (rubbish and litter) that are lying around outside near where you live. Ask a parent or older sibling to help you lift these and put them in the bin. Remember, to stop the spread of germs and infection, you should use gloves or a pick-up stick and not your bare hands.	
FEATHERY FRIDAY	Time to try some ecology ! Look outside and see if you can identify five different types of birds. If you need help with the different types of birds, ask your family. You can find out some fun facts on the internet about the birds you see.	
SUGGESTION SATURDAY	Today is all about new ideas . During the week, you may have realised that you and your family can do things to help your local environment. Can you suggest five new ideas that could work in your family life. Maybe your parents' car has an oil leak. Do you waste a lot of paper when you are drawing? Could your family walk somewhere instead of taking the car? Write down your five ideas and test your family to see if they will try them.	
SPREADING SUNDAY	The last challenge this week is to spread the word . Tell five family members or friends (by text, email, FaceTime or phone if they do not live in your house) about all the challenges you have completed this week. Try to encourage them to take the RSK '5 a Day Challenge'.	



ENVIRONMENTAL SOLUTIONS

WORD SEARCH

A	Q	U	I	A	O	T	H	P	U	P	C	B	I
S	E	G	R	A	S	S	E	S	S	M	E	N	T
B	P	E	P	I	L	L	O	T	E	B	V	O	E
E	C	O	L	O	G	I	S	T	S	E	R	I	S
S	Z	L	A	R	U	F	P	V	S	U	M	T	S
T	S	O	N	D	A	E	O	T	I	Y	L	A	N
O	U	G	T	Y	G	V	I	W	C	N	A	N	O
S	B	Y	W	H	A	G	R	N	G	R	B	I	I
E	R	Y	E	H	A	T	A	N	T	I	O	M	T
T	I	E	X	T	K	T	V	A	O	Z	R	A	A
P	S	P	I	L	L	R	S	S	B	K	A	T	I
E	K	O	I	U	F	I	E	U	W	O	T	N	D
E	N	L	S	C	I	E	N	C	E	N	O	O	E
B	I	N	I	O	V	E	T	O	A	T	R	C	M
C	O	S	C	I	T	S	U	O	C	A	Y	N	E
C	I	S	U	R	V	E	Y	O	R	Z	E	N	R

CONSULTANCY CALCULATIONS

1	2	3	4	5	6	7	8	9
4.10 pm	5.1 kilograms	30.5 decibels	£1,917	7 hours 20 minutes	18 lorry loads	£88.45	142 litres	20

WHERE IN THE WORLD

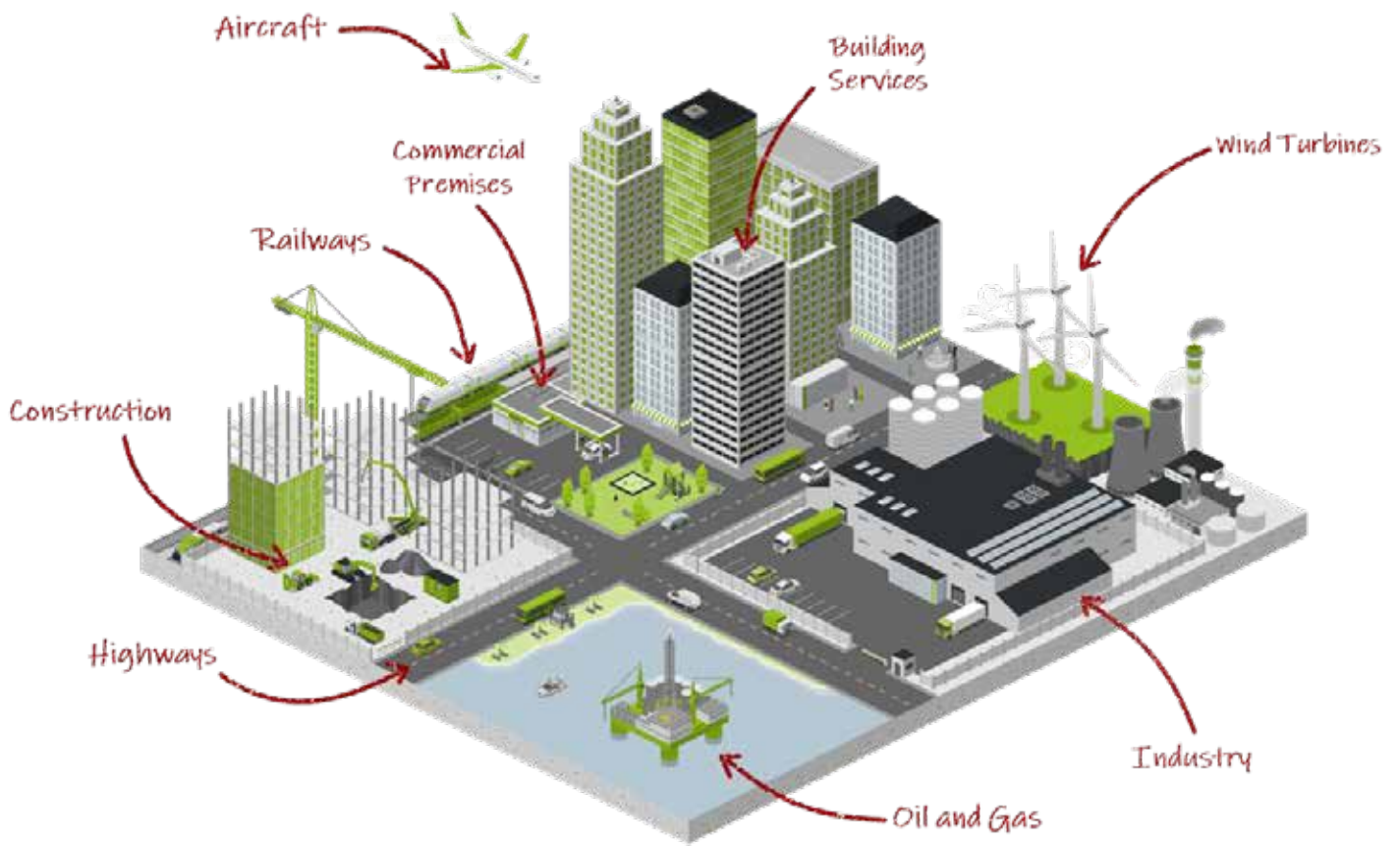
Hemel Hempstead = England; Warsaw = Poland; Leipzig = Germany; Ghent = Belgium; Lyon = France; Stirling = Scotland; Milan = Italy; Dublin = Ireland; Istanbul = Turkey; Aberystwyth = Wales

ENVIRONMENTAL FIELDWORK

- Monday, Sam, Level 1 Architects and RSK are all acceptable answers
- Beyond repair
- Species
- Nearly, not quite, about, practically, near and close to are all acceptable answers
- Hidden, obscured, covered and screened are all acceptable answers
- Sett: a badger's home
- Answer 1 set and sett
- Shane, signalled, southern, swiftly, survey
- Mammal

Word	Noun	Verb	Adverb	Adjective
Old				✓
Swiftly			✓	
Customer	✓			
Call		✓		

WHERE WE WORK



RSK



WE HOPE YOU ENJOYED USING THESE RESOURCES.
IF YOU WANT TO KNOW ABOUT RSK AND ITS WORK,
YOU CAN FIND OUT MORE AT www.rskgroup.com

