

EXPLORING NUCLEAR ENERGY



مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation



شركة براكة الأولى ش.م.خ
Barakah One Company PJSC



شركة نواة للطاقة
Nawah Energy Company





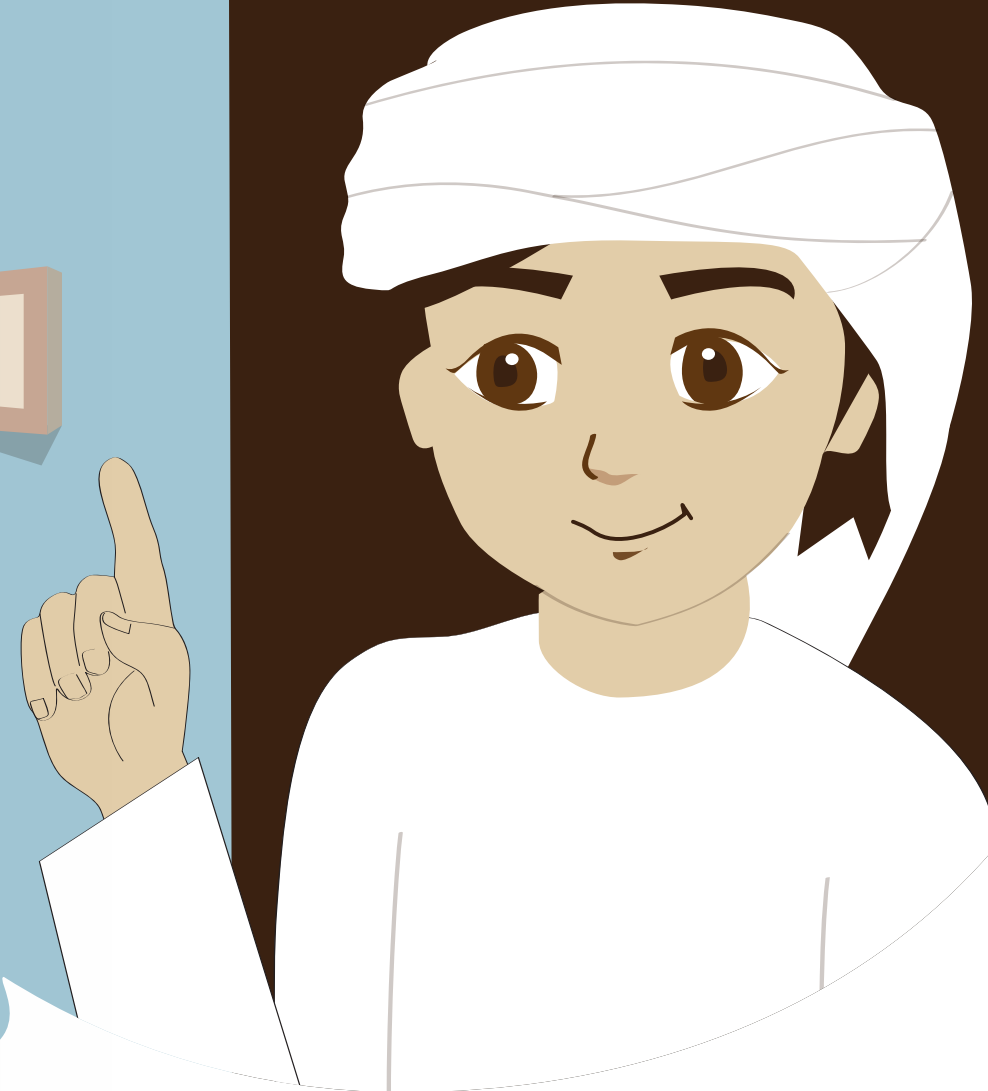
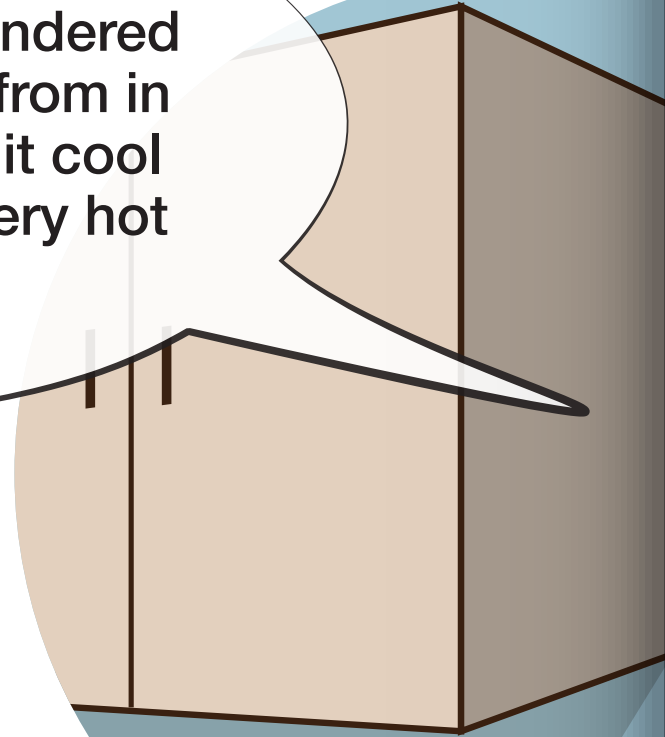
Time for breakfast,
Saif! Don't forget to
turn the lights off after
you have opened the
curtains!

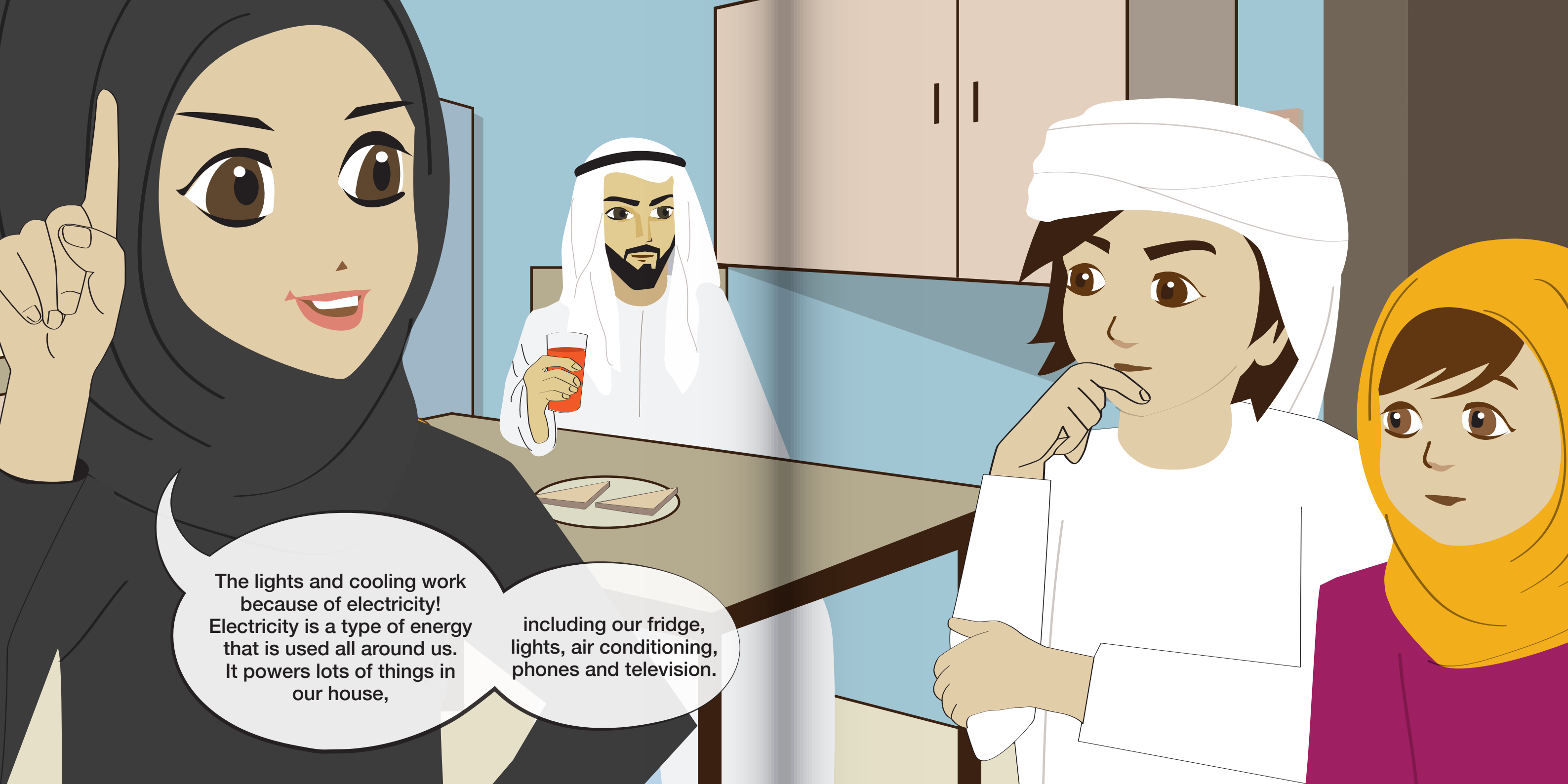


Good morning Saif!
Good morning Salama!

Good morning Dad!
Good morning Mom!

Mom, I have always wondered
where the light comes from in
our house! And why is it cool
inside even when it's very hot
outside?



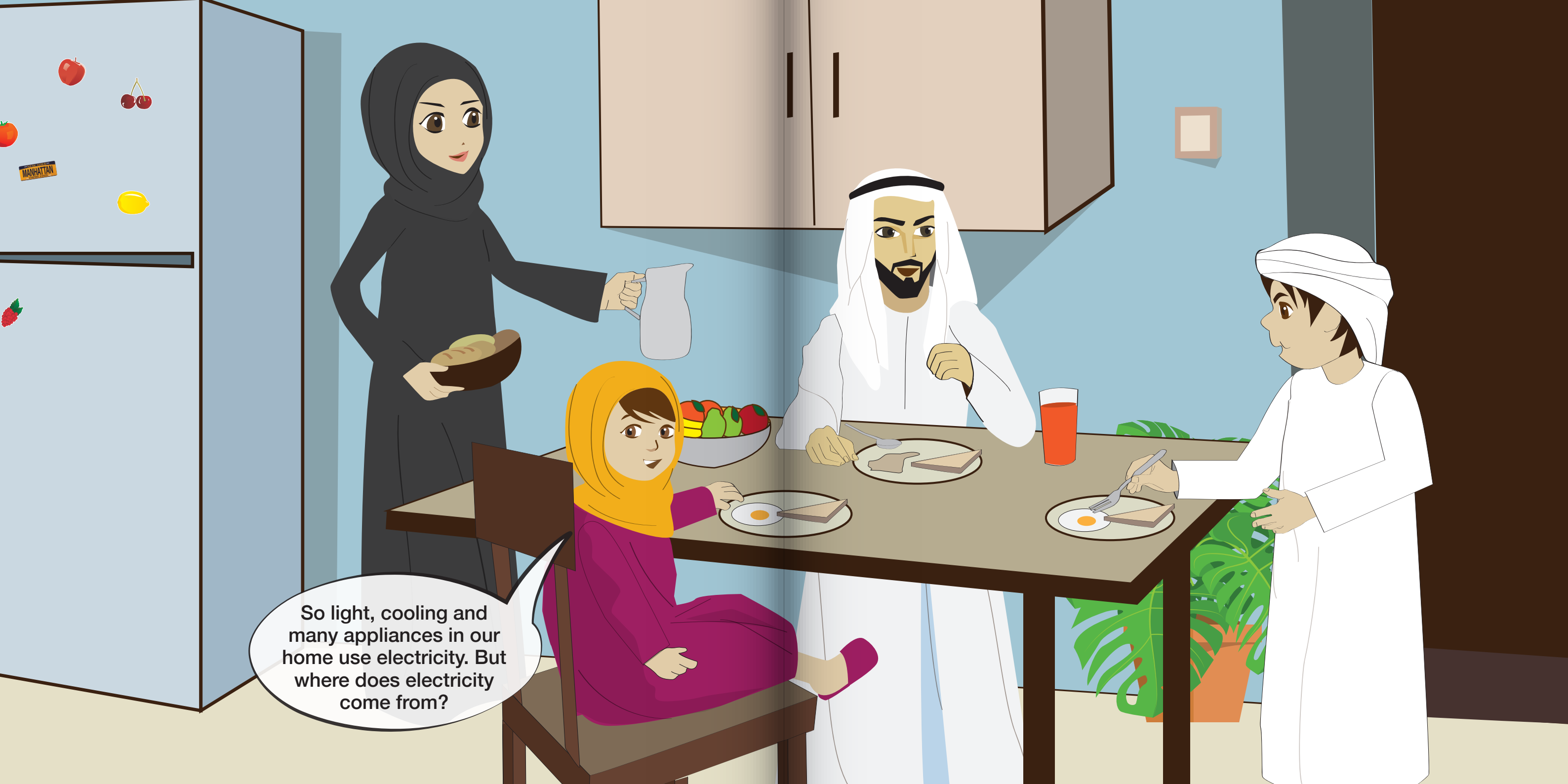


The lights and cooling work because of electricity! Electricity is a type of energy that is used all around us. It powers lots of things in our house,

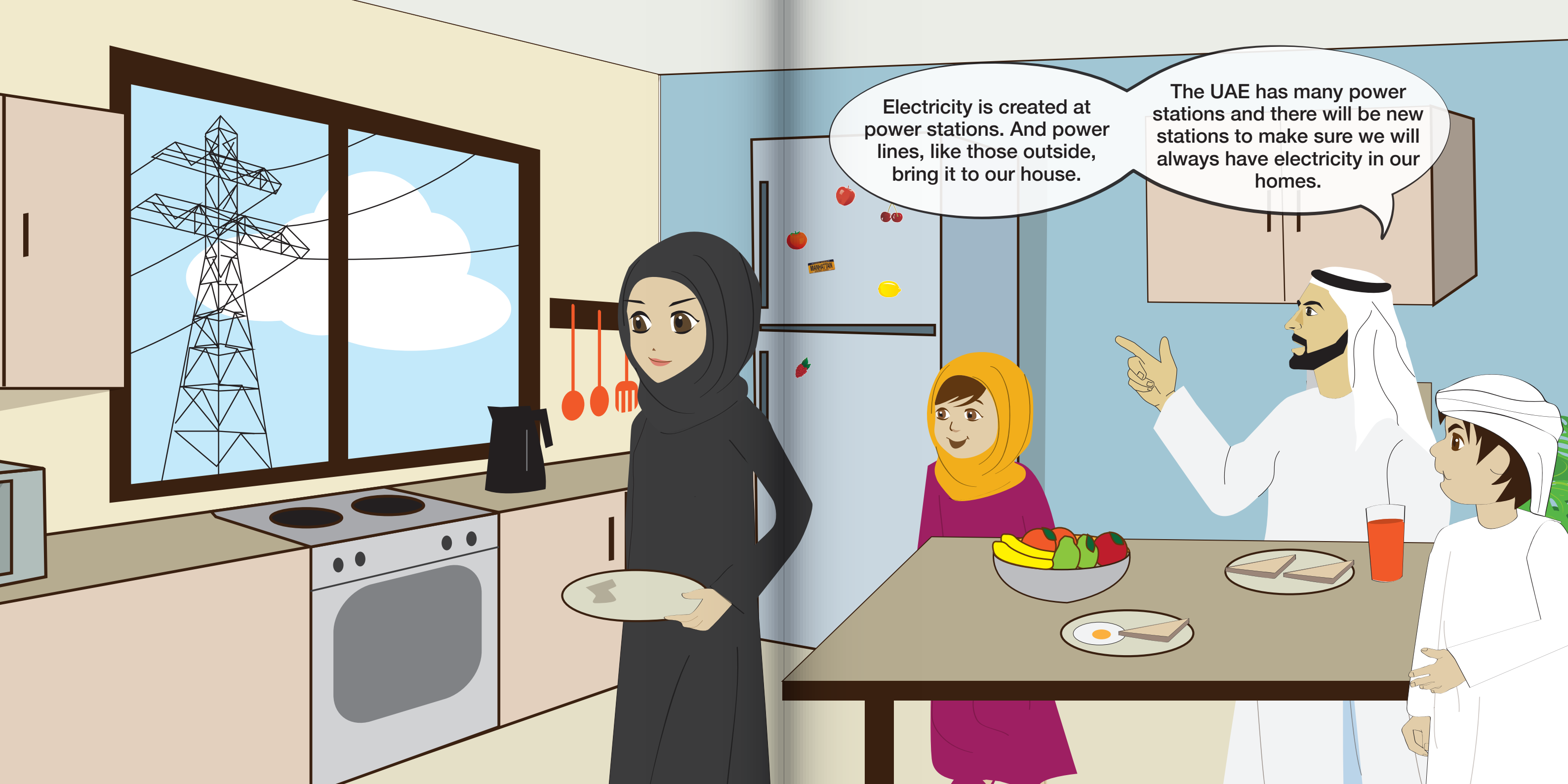
including our fridge, lights, air conditioning, phones and television.

Can you circle all the things in our kitchen and living room that use electricity?





So light, cooling and many appliances in our home use electricity. But where does electricity come from?

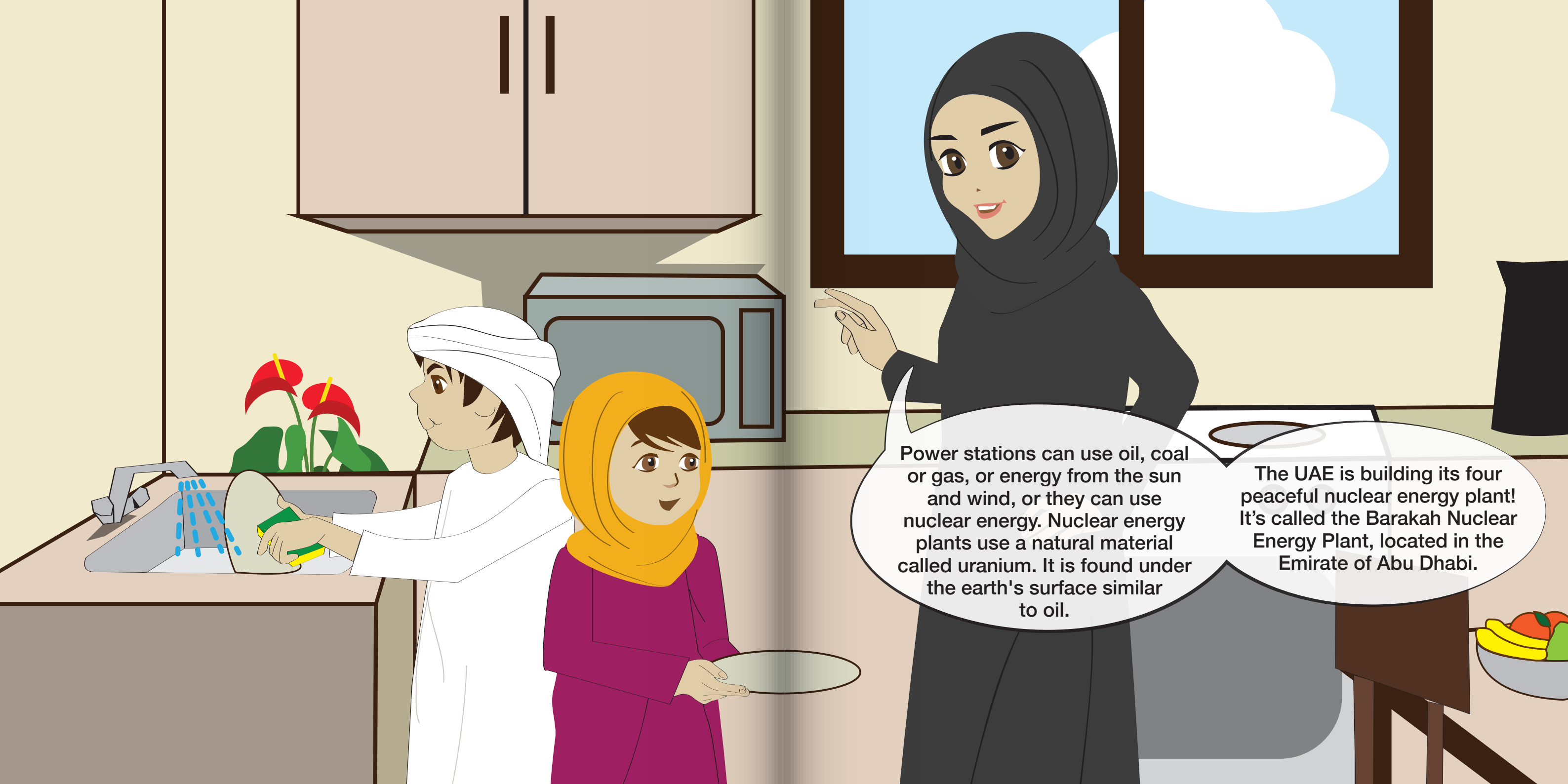


Electricity is created at power stations. And power lines, like those outside, bring it to our house.

The UAE has many power stations and there will be new stations to make sure we will always have electricity in our homes.



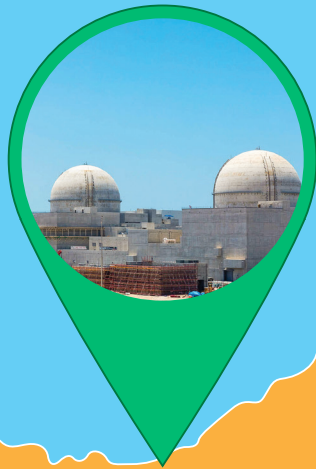
How do power
stations produce
electricity?



Power stations can use oil, coal or gas, or energy from the sun and wind, or they can use nuclear energy. Nuclear energy plants use a natural material called uranium. It is found under the earth's surface similar to oil.

The UAE is building its four peaceful nuclear energy plant! It's called the Barakah Nuclear Energy Plant, located in the Emirate of Abu Dhabi.

Barakah Nuclear Energy Plant

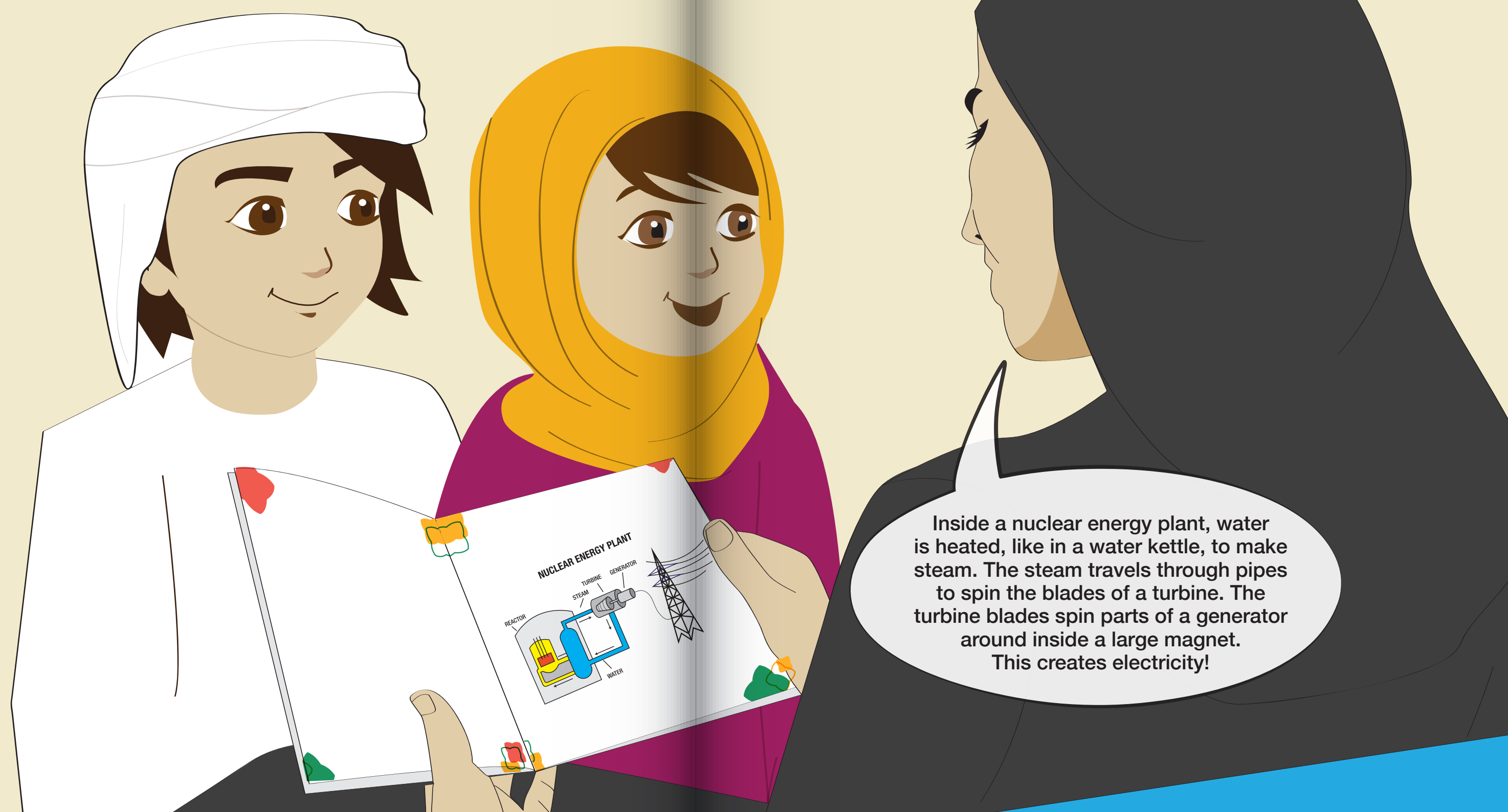


ABU DHABI

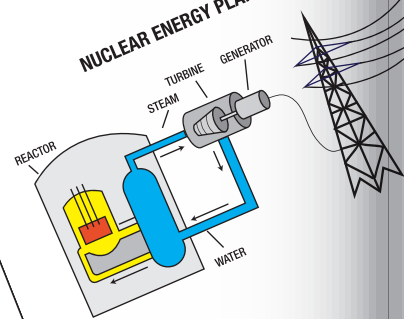
Ras Al-Khaimah
Umm al-Quwain
Ajman
Sharjah
Dubai
Fujairah



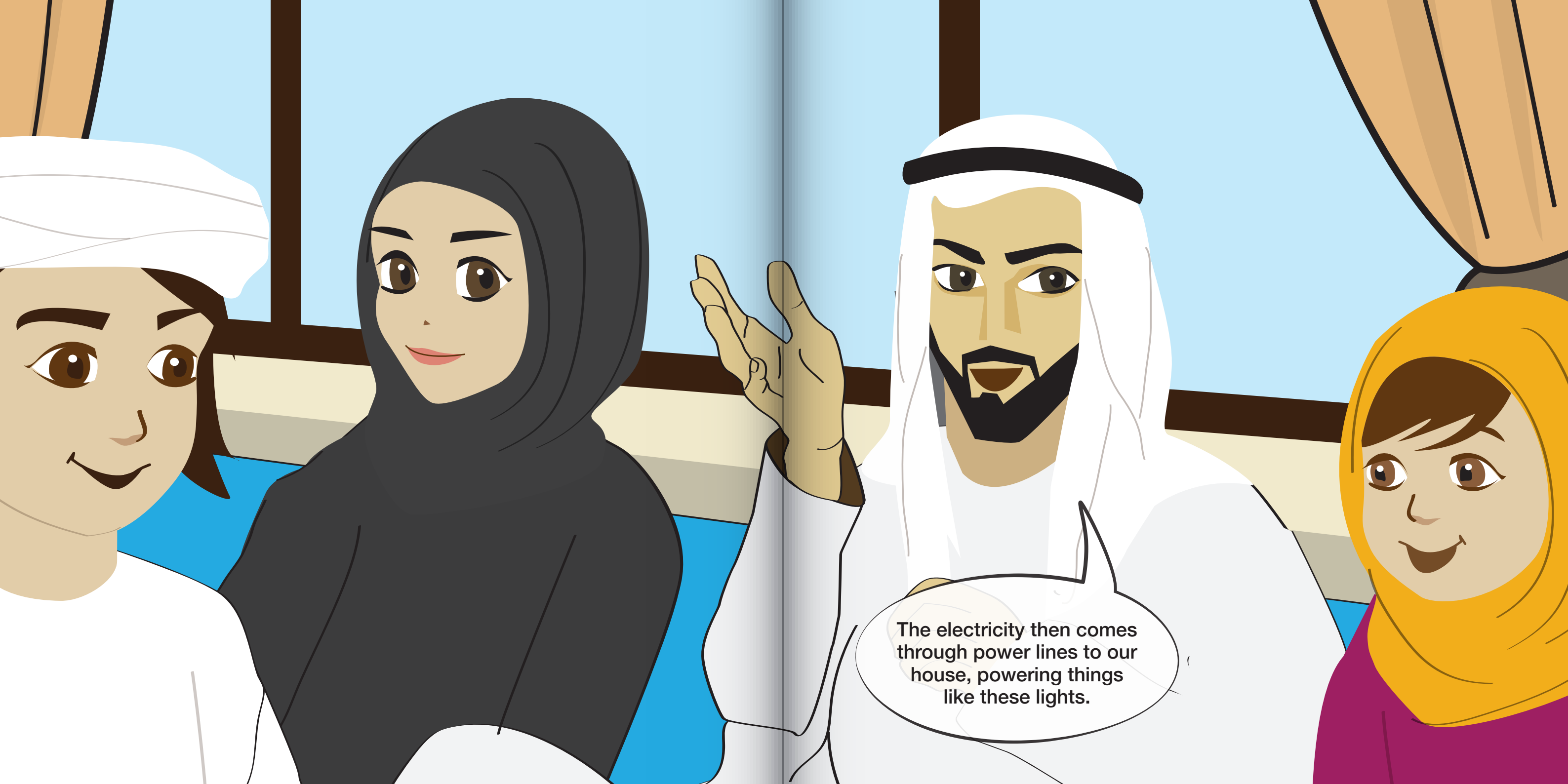
How does a nuclear energy plant work?



NUCLEAR ENERGY PLANT



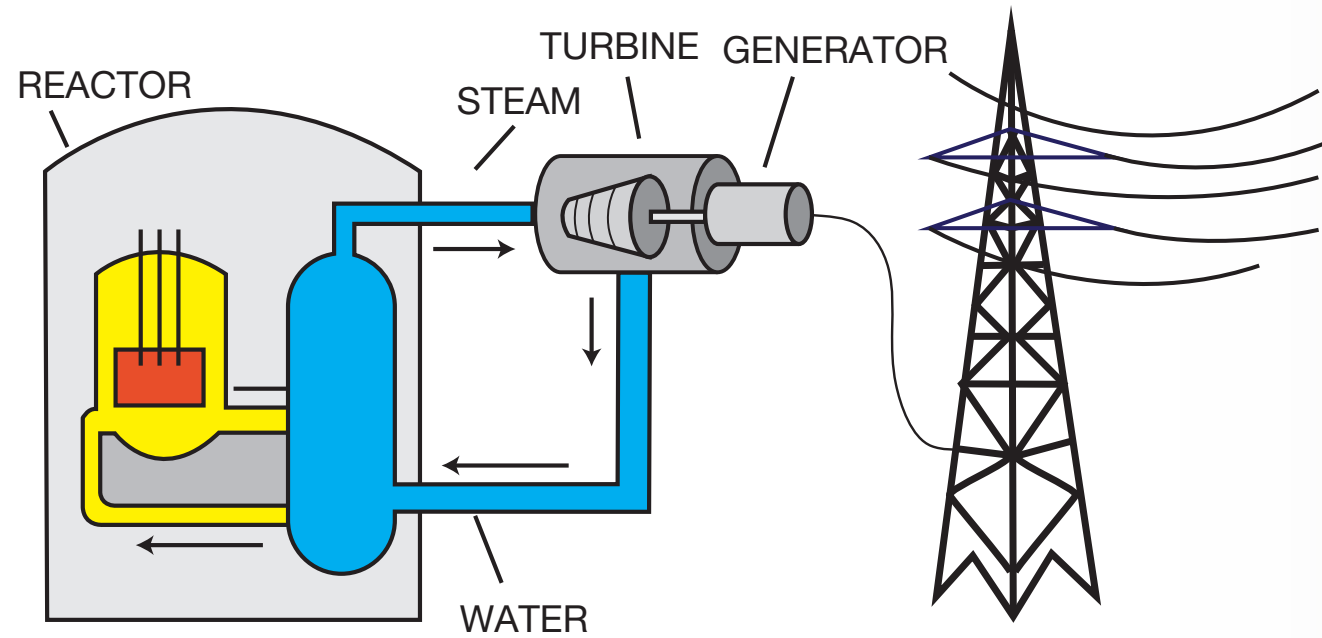
Inside a nuclear energy plant, water is heated, like in a water kettle, to make steam. The steam travels through pipes to spin the blades of a turbine. The turbine blades spin parts of a generator around inside a large magnet. This creates electricity!



The electricity then comes through power lines to our house, powering things like these lights.

Let's learn more about the parts that make up a nuclear energy plant.

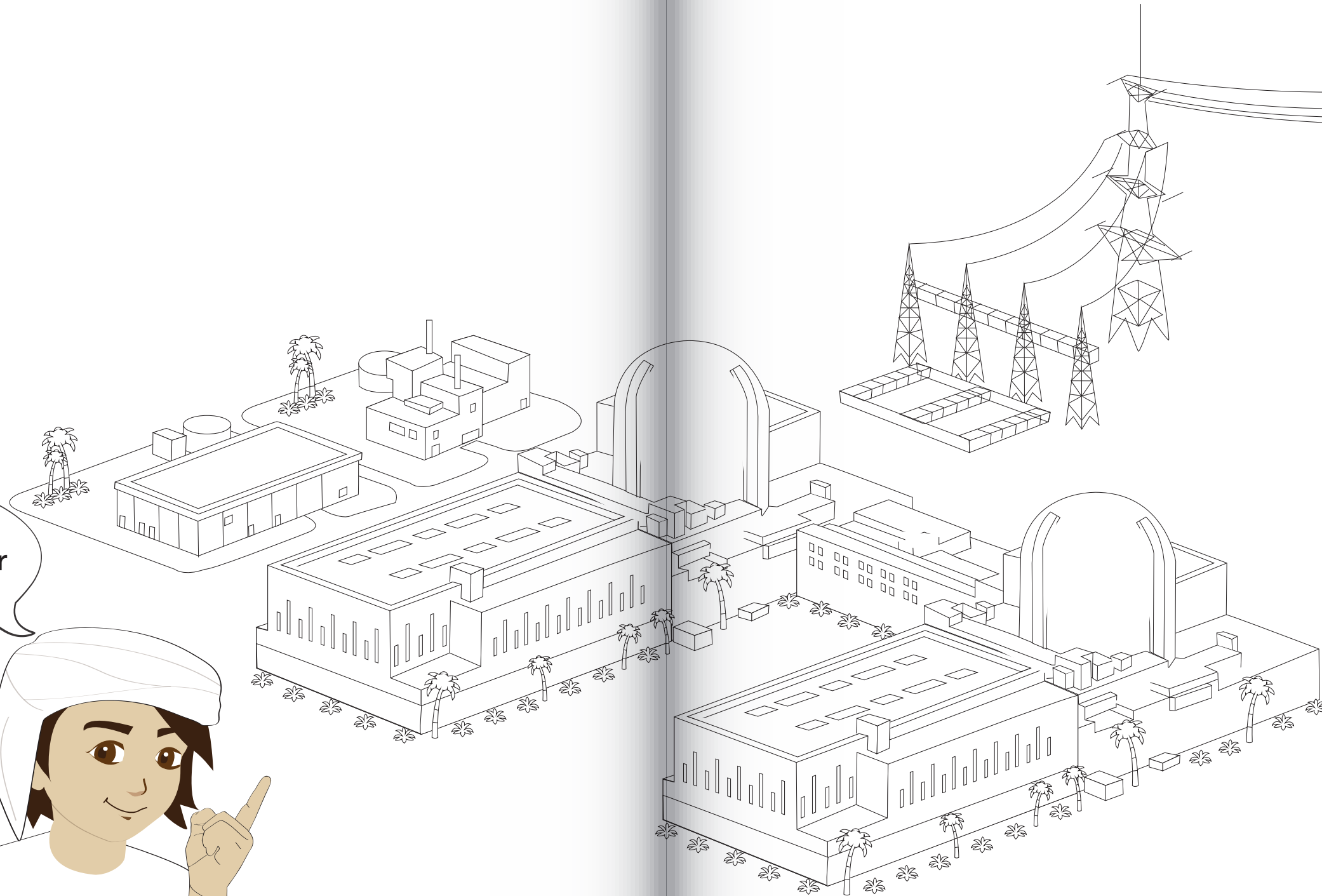
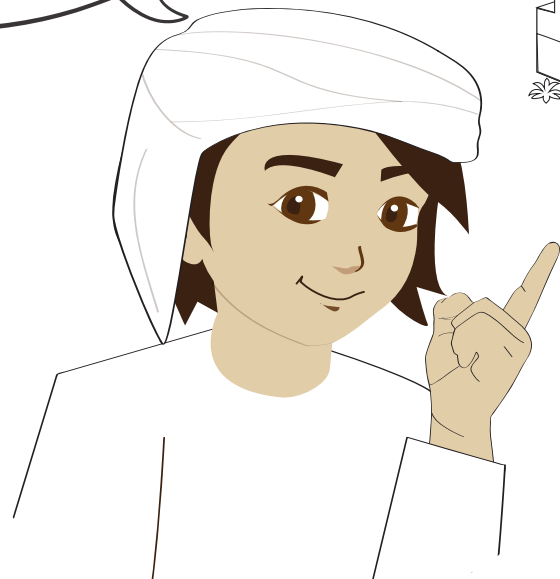
NUCLEAR ENERGY PLANT



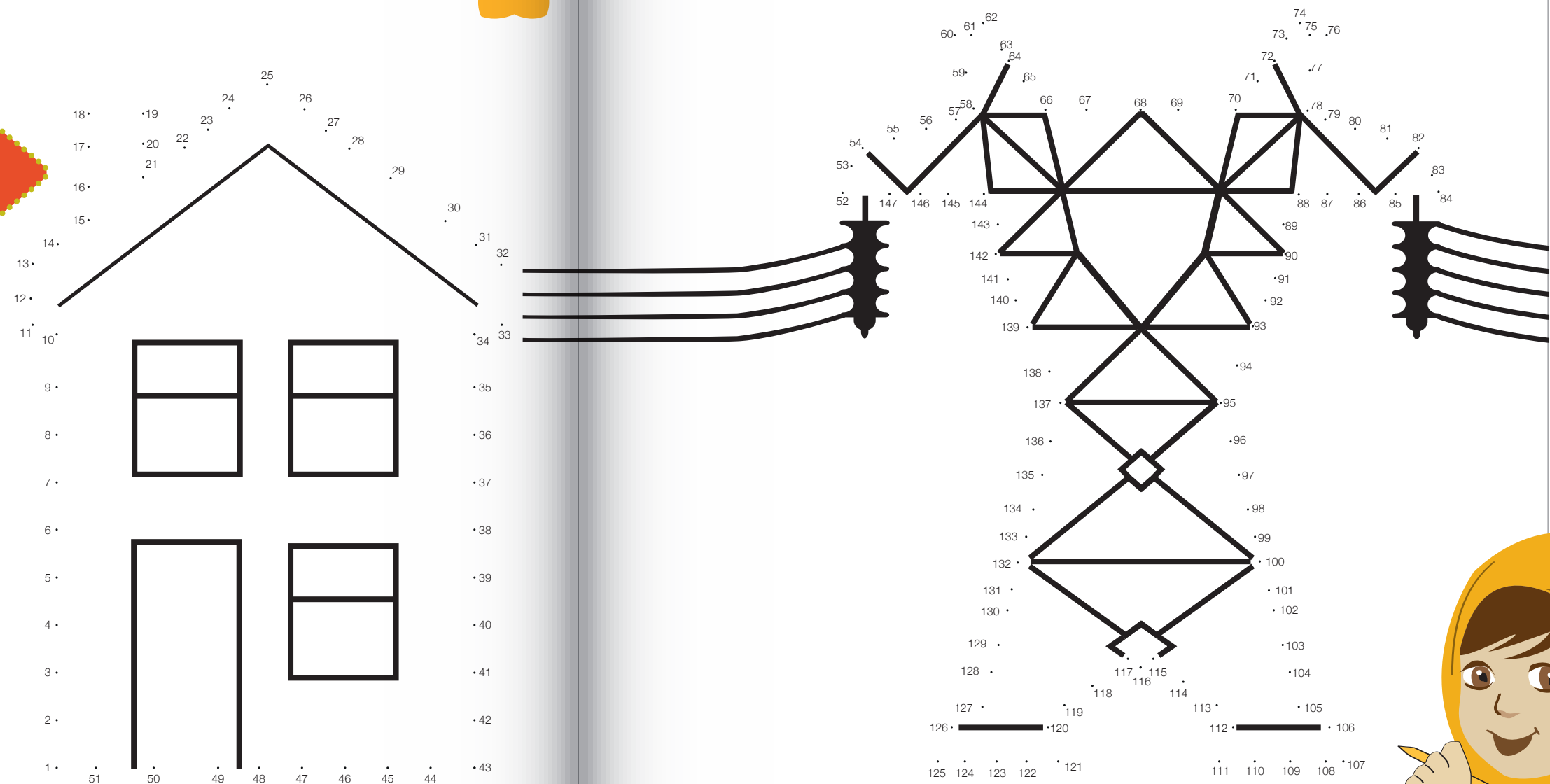


The Barakah Nuclear Energy Plant is very important because it will generate lots of the electricity we all need here in the UAE to power our homes, schools, hospitals... everywhere!

Can you colour in
the Barakah Nuclear
Energy Plant?



Learning about electricity is fun when there is a surprise at the end! So help Salama join the dots and colour the picture. Have fun!



Can you help Saif find the words hidden in the wordsearch puzzle?
Test your understanding of words and nuclear energy!

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

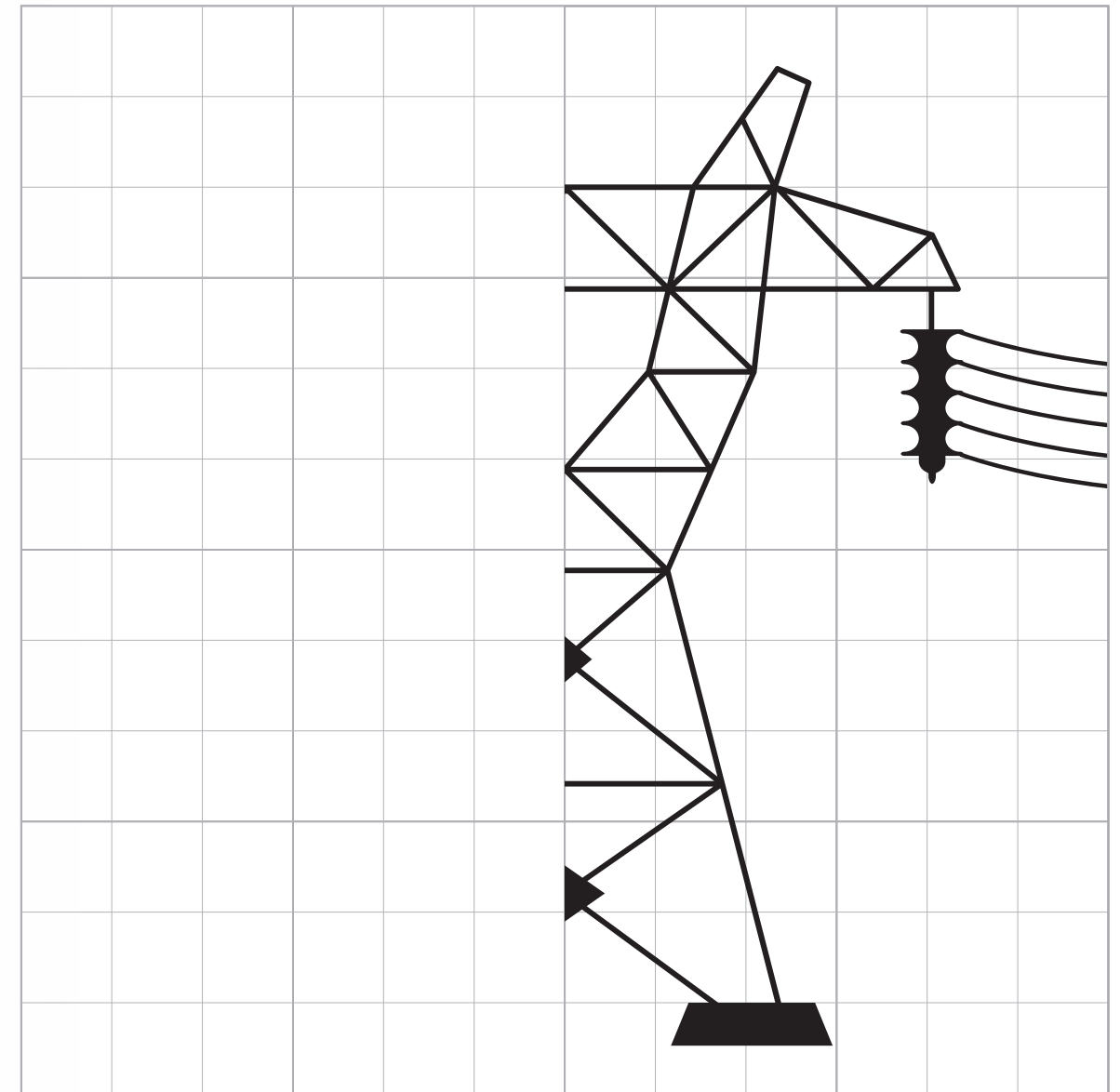
ENERGY, NUCLEAR, ELECTRICITY,
FUEL, BARAKAH, HEAT, STEAM,
GENERATOR, URANIUM



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

Here's your chance to be a Nuclear Engineer! On the right is half of a power line blueprint. Your mission is to complete the other half of the image by drawing the mirror of the image present on the grid.

Hint: Count the number of blocks in the grid to make sure your dimensions are correct.








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