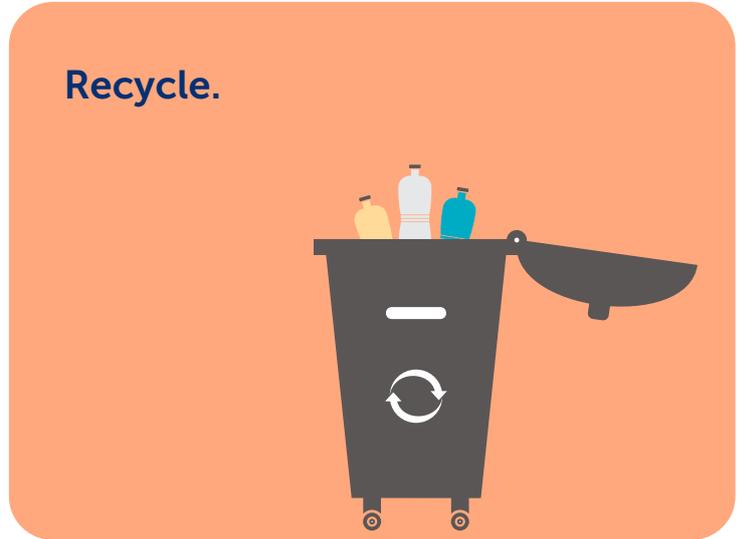
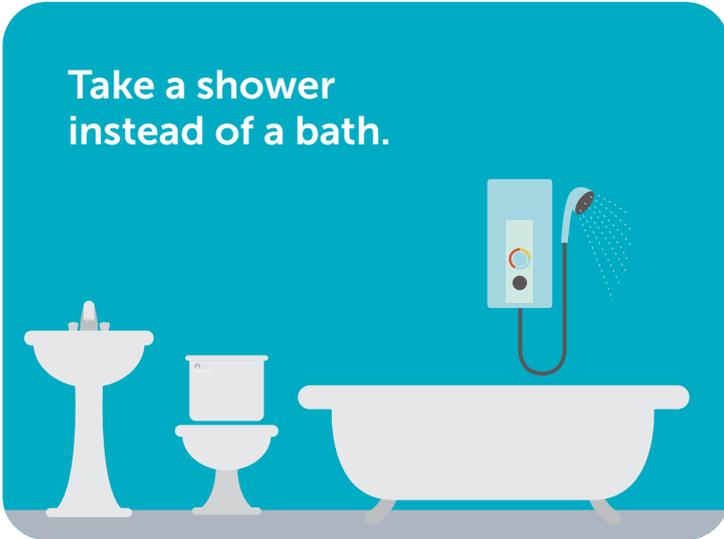
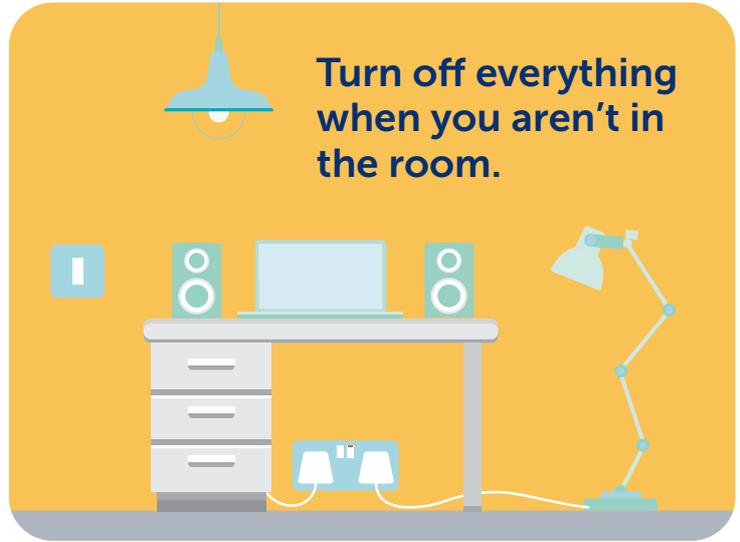


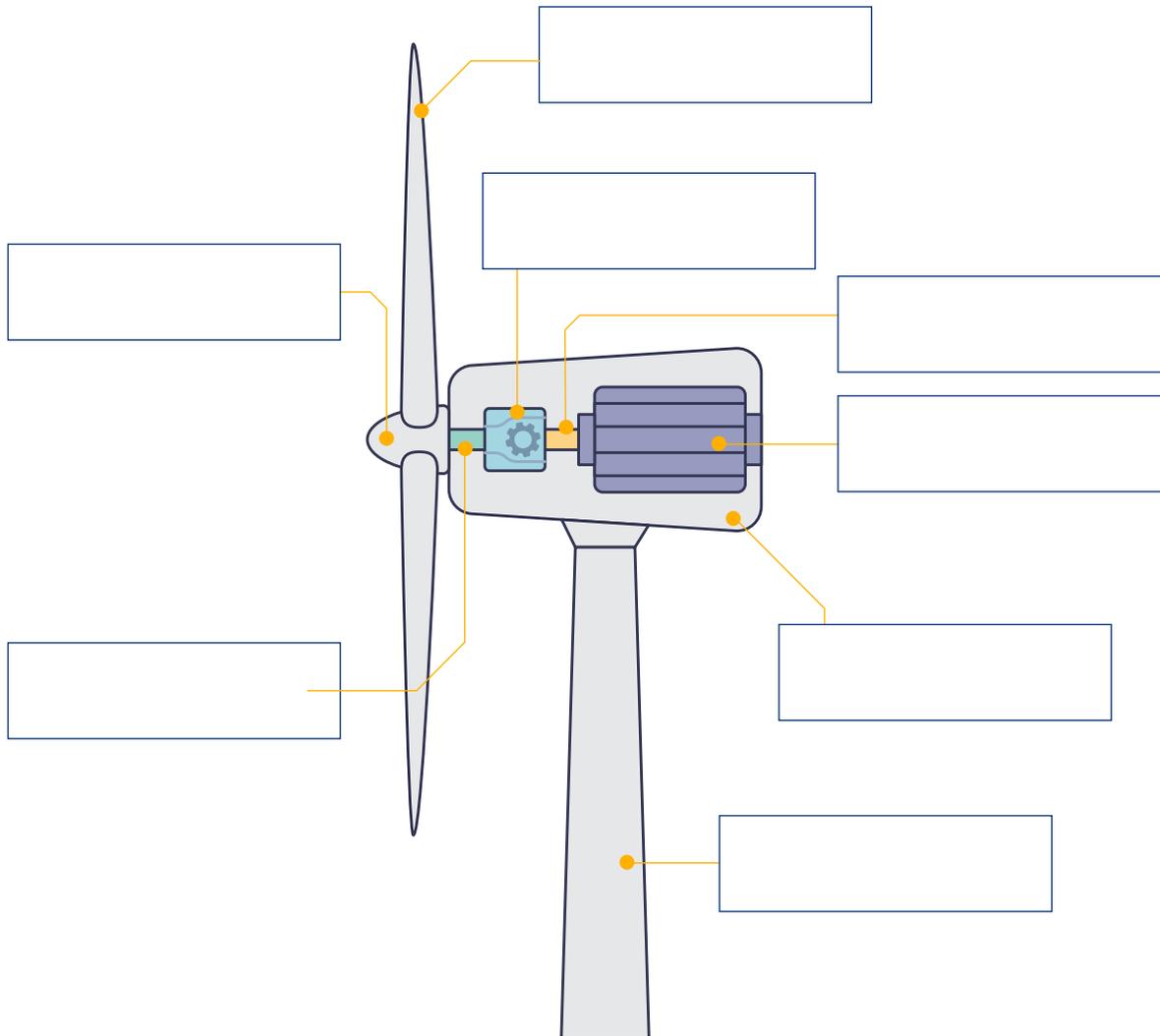


## Energy Saving Challenge

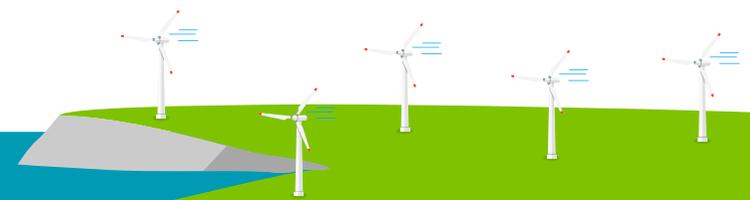
1. Cut out the images
2. Discuss why they they are a good idea.
3. In pairs, order the images with the most energy saving activity first.



# Wind Turbine Construction



- |                  |
|------------------|
| Low speed shaft  |
| Generator        |
| High speed shaft |
| Gearbox          |
| Nacelle          |
| Tower            |
| Blades           |
| Rotor            |



## The Power of the Wind (1)



## The Power of the Wind (2)

### Wind Speed - Beaufort Scale

Scale	Description	km/hr	Signs
0	calm	0 - 1.6	Smoke rising vertically
1	light air	3.2 - 4.8	Smoke drifts slowly
2	light breeze	6.4 - 11.3	Wind felt on face, leaves move
3	gentle breeze	12.8 - 17.7	Flags move, leaves move constantly
4	moderate breeze	19.3 - 25.7	Small branches move, litter blows about, dust raised
5	fresh breeze	27.4 - 33.8	Small trees sway
6	strong breeze	35.4 - 43.5	Large branches on trees move
7	moderate gale	45.1 - 53.1	Whole trees sway, hard to walk against the wind
8	fresh gale	54.7 - 64.4	Twigs and branches break off, very hard to walk against the wind
9	strong gale	66 - 73	Large branches break off, minor damage to property
10	whole gale	78.9 - 90.2	Trees uprooted, major damage to property
11	storm	91.8 - 104.7	DANGER - take shelter (rarely inland)
12	hurricane	106+	DISASTER conditons





## The Power of the Wind (2)

### Wind Speed - Beaufort Scale

Scale	Description	km/hr	Signs	
0	calm	0 - 1.6	Smoke rising vertically	
1	light air	3.2 - 4.8	Smoke drifts slowly	
2	light breeze	6.4 - 11.3	Wind felt on face, leaves move	
3	gentle breeze	12.8 - 17.7	Flags move, leaves move constantly	
4	moderate breeze	19.3 - 25.7	Small branches move, litter blows about, dust raised	
5	fresh breeze	27.4 - 33.8	Small trees sway	
6	strong breeze	35.4 - 43.5	Large branches on trees move	
7	moderate gale	45.1 - 53.1	Whole trees sway, hard to walk against the wind	
8	fresh gale	54.7 - 64.4	Twigs and branches break off, very hard to walk against the wind	
9	strong gale	66 - 73	Large branches break off, minor damage to property	
10	whole gale	78.9 - 90.2	Trees uprooted, major damage to property	
11	storm	91.8 - 104.7	DANGER - take shelter (rarely inland)	
12	hurricane	106+	DISASTER conditons	





## Energy in our homes

Draw your ideas on how electricity is used in your home.

