

## SNAKES & LADDERS GAME INSTRUCTIONS



### How to play the game

The aim of the game is to be the first player to reach the end by moving across the board from square 1 to square 64. You will travel the board from base to top, right, then left and so on.

### Number of players/people required:

Any number of players can be involved, and a 'Question Master' is needed to ask the questions. Beyond 7-8 players the game may become difficult to manage and it is better to break the group into teams at this point.

### Tools needed:

A print out of the Reusits [Snakes and Ladders board](#)  
Dice, 1-5 people

### Instructions:

- Print PDF [Snakes & Ladders board](#).
- Print PDF [Questions for Snakes & Ladders game](#).
- Use something like a coin to mark your space on the Snakes & Ladders board.
- First player on each team have to roll the dice to see who goes first (lowest roll goes first!).
- The dice must be rolled again to show the number of squares that the player entering the board may move initially.
- The players move along the board until they encounter a ladder, snake or brown wheelie bin.
- Questions are asked on every ladder, brown wheelie bin, snake and also at the discretion of the question master.
  - *Snake*: if a player lands at the tip of the snake's head, the group will be asked a waste related question, if the question is right they stay on the square if not they slide down to the square at the snake's tail.
  - *Ladder*: if a player lands on a square that is at the base of a ladder, the group will be asked a waste related question, if the question is right his or her marker moves to the square at the top of the ladder and continues from there.
- To finish you have to roll a number that leaves you on the Rediscovery Centre logo. If you roll over what you need you measure back from the Rediscovery Centre logo what you were over.

### Optional additions for question master:

- If you land on the Discover Primary Science (DPS) logo, compost bin or bottle bank you have to answer an additional bonus question – rewards can be given for correct answers on these squares or the player can be allowed to move two additional steps. Forward.

Note: The question master's word is final!





*The following document gives some suggestions for questions to be ask while playing the snakes and ladders game – Teachers should tailor the question to cover topics to compliment the green team activities and the curriculum.*

It is better for the environment and your parent's pocket to use your black bin as much as possible? **True/false**

How can you reduce the amount you put into your black bin? **Reduce, Reuse & Recycle** (eg, use green & brown bins &/or compost bin &/or worm bin, etc)

Where can the Reusits put their kitchen and garden waste? **Brown bin or compost bin or worm bin**

What can the Reusits make with food waste? **Compost**

What can compost be used for? **Gardening**

Name 5 things you can put in your brown wheelie bin in the Dublin area? **Left over food, meat, fish, poultry, bones, tea bags, garden waste, egg shells, dust from vacuum cleaner bag, etc**

Name 5 things you can't put in your brown wheelie bin in the Dublin area? **Plastic, cans, tins, sweet & crisp wrappers, glass, weedkiller or weeds sprayed with weed killer, anti bacterial stuff, etc**

Does compost get made faster in Summer or Winter? **Summer**

Compost improves soil. **True** or False?

Approximately one third to two-thirds of the average dustbin contents can be composted? **True** or False?

Making compost lightens your black bin (dustbin) and reduces smells? **True** or False?

Reducing the amount of compostable material that is sent to landfill will result in the production of less noxious liquids and greenhouse gases (especially methane). **True** or False?

Name one benfit of composting or using your brown bin.  
**Eg. Saves money, saves using peat based compost, reduces green house gases**

Name 5 things you can put in a garden compost bin? **Grass, Leaves, paper, fruit & veg peelings, tea bags, egg shells, dust from vacuum cleaner bag, etc**

Name some items that can't go into the compost? **Meat products, dog and cat litter, glossy magazines, diseased plant material**

Why is composting a good thing to do? **It reduces the amount of waste you produce, it provides food for the soil and plants, it reduces the nasty gases that are produced from landfill**

Which of the following things should you not put into your backyard compost bin? Dry leaves, Vegetable scraps, **Meat and dairy products** or Newspapers

What does Biodegradable mean and give an example? **That it will break down or decompose eventually**

What does Compostable mean and give an example? **That it will break down or decompose in a compost bin like other compostable materials ie gardening and food waste**

What type of worms live in a wormery? **Tiger worms**

Worms like to eat a lot of things, but not everything! What don't they like to eat from this list? **Banana Peel, Cabbage, Cooking oil, Eggshells**

Worms can eat a lot of food in one day. How much food does one worm eat each day?  $\frac{1}{4}$  its own weight,  $\frac{1}{2}$  its own weight, **10 times its own weight**

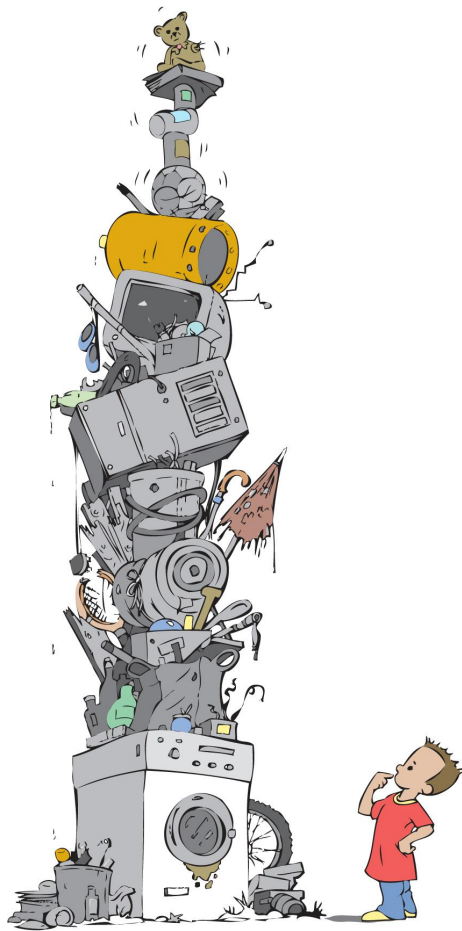
How much less energy does it take to make glass from recycled glass than from scratch? 10%, 40% or **50%**?

Name one advantage of recycling. **It uses less resources, it saves energy, it reduces the amount of waste sent to landfills, and it creates jobs**

If you turn off the lights when leaving the room you are saving? **Energy**

Name 3 things you can do at home or school to save energy? **Turn off lights when leave room, don't leave TV on standby, walk or cycle to school / work**

When you reuse things you also save energy?  
**True/false**



When we use aerosol cans we are destroying our O. . . . Layer. **Ozone**

How can sun/wind/water/wood/food be used as an energy source? **Eg. Wind can make sailing boats move and make wind turbines work.**

True or false... Non Renewable energy can be used over and over again without running out? **FALSE**

True or false... Renewable energy is a cleaner energy. **True**

Name 3 fossil fuels? **Peat, coal, gas, and oil (petrol)**

Are fossil fuels renewable? **They are non-renewable energy resources. They take millions of years to form and when they run out, they cannot be replaced.**

Name 3 ways you use energy each day? **Getting to school (car travel), using computers, cooking, eating, heating you home or school, listening to music, TV, Lights, paper and all other material take energy to make (less if they are recycled or reused!), etc.**

Name 3 ways you can reduce this energy usage? **Turn off electronic equipment, walk or cycle to school, share lifts with your friends parents, recycle, reuse, use lunch box instead of paper or plastic, close doors and windows to keep in heat, etc**

If you recycle you are saving our? **Environment/planet**

Where does your waste go if you do not recycle? **Landfill**

Where can / should you bring your WEEE (waste electronic and electrical equipment) ? Some Recycling Centre – **Yes**, Back to shop you bought it in – **Yes**, Landfill / dump – **No**

Where is your nearest recycling centre? (note., location specific)

Where can you recycle clothes? **Clothes bank**

What is the most valuable recyclable packaging material? **Aluminium**

Name 3 things that can be recycled in your green bin at home (Dublin region)? **Paper, light cardboard packaging, drinks cans (aluminium), Food cans (steel and tin), all clean plastic, tetra pak (milk and juice cartons)**

Name 3 things that can't be recycled in your green bin at home (Dublin region)? **Glass, garden waste or wood, food or sharp objects, clothing or textiles, hazardous waste**

How often is your green bin collected home (Dublin region)?

Every week, **every two weeks**, every month or every year.



To make recycling everyone should:

Rinse and flatten plastic food containers, steel and tin cans (food or drink)? **True** or false

Flatten cardboard boxes? **True** or false

Remove all lids and tops from containers and place in green bin as a separate item? **True** or false

RINSE ALL containers before depositing in the bin? **True** or false

Name 3 things that can't be put into the Green Bin at home but you can bring for recycling somewhere else, like to a recycling centre or school collection point.  
**computer, phone, batteries, glass**

How long does it take for polystyrene to break down in landfill? 3 yrs, 7yrs or **Never**

How long would it take a bus ticket to break down? **2 to 4 weeks**

How long would it take a rope to break down? **3 to 14 months**

How long would it take a cigarette butt to break down? **2 to 5 years**

How long would it take a painted wooden stake to break down? **13 years**

How long would it take a boot sole to break down? **50 to 80 years**

How long would it take a tin can to break down? **80 to 100 years**

How long would it take an aluminium can to break down? **200 to 500 years**

How long would it take a plastic bag to break down? **100 to 800 years**

How long would it take a glass bottle to break down? **Unknown.**

***Please note that these are estimates of time, which vary depending upon landfill conditions.***

Which would break down faster, a plastic bottle or a glass bottle? **Plastic bottle**

**How long do steel tins take to decompose naturally?**

It depends on the environment. In particularly corrosive environments - say on the salty sea shore in a tropical country, just a few months. But in Antarctica, it will never decompose, it'll stay frozen in the ice forever.

How many bins could be in a classroom to separate waste and name them?

**3 bins should do: dry recyclables (paper, tins, cans, tetra pak and plastic), compost (food and garden waste) and normal rubbish.**

However you may decide you want to collect paper separately so that you can reuse it easier, or you may want to collect batteries, glass, mobile phones, etc

By recycling paper and cardboard how many trees do Dublin households save each year? 10,000, 50,000, or **250,000**

How many aluminium cans does it take to make a bike? 100, **670** or 1000

How many plastic bottles does it take to make one fleece jacket? 10, **25** or 100

How many times can aluminium drink cans be recycled? **Over and over again**, Once or Never

How many bin bags of nappies does one baby produce each year? 5, 20 or **40**

How much green bin waste is Dublin producing each year (2007)? 20,000, 40,000 or **60,000?**

Name 3 R's of waste management & which is the best one to do? **Reduce, reuse, recycle**

What is the best solution to our waste problem? **To reduce the amount of waste we produce/consume**

Name three things newspaper can be reused as? **Wrapping paper, envelopes, paper machie, art projects.**

What does reusing waste mean? **Using a material again for another purpose**

Name an item that can be produced from recycled tyres ? **Mouse pad, pencil case, etc**

If you want to reduce waste what would you do? Buy lots of disposable things or **buy things you can use again and again**

If you reduce waste what are the environmental benefits? **You conserve valuable resources, save money, help the environment**

Can you think of another Re to add to Reduce Reuse Recycle?

***Reinvest...buy recycled products, recreate, rediscover, restyle***

Name 3 ways of reducing waste. **Reusing shopping bags, Refill your water bottle instead of buying new bottled water or Get a compost bin**

When shopping name 3 things you could do to reduce the amount of packaging you bring home? **Buying loose fruit & veg, buying large carton yoghurts, large cereal / bottles etc**

Can you think of another name for compost beginning with R to add to Reduce, Reuse, Recycle? **Rot or some other creative answer !**

Which one of these gases comes from landfill and effects Climate Change?  
**Methane** or Oxygen

Where does your waste go if you do not recycle? **Landfill (dump)**

A Landfill is a place where waste is? **Burnt, buried** or recycled

An incinerator is a place where waste is? **Burnt**, buried or recycled



Is the gas 'methane' produced in the dump by rotting food waste or by tin cans?  
**Rotting food waste**

Name three things plastic could be recycled into? **Fleece, pens, pencils, plastic bottles, etc**

Office paper is often recycled and made into more office paper. But what else can it be recycled into? **Tissue, toilet roll, boxes, stationary, packaging material, etc**

**Where does paper come from?** Trees or old recycled paper

Where does plastic come from? **Oil or old recycled plastic**

Where does tetra pak come from? **Tetra Pak cartons are made from wood in the form of paperboard, as well as thin layers of aluminium and polyethylene. The most common Tetra Pak carton is 77% paper, 18% polyethylene and 5% aluminium**

Where does aluminium come from? **Aluminium ore, most commonly bauxite, occurs in tropical or sub tropical areas eg. Africa, West Indies, South America, Australia.** The Aluminium can accounts for 2% by weight, but 50% by value of materials collected in the UK. It has the highest value of any recyclable packaging material.

Where does compost come from? **Decomposed organic waste, everything that was once living can become compost, even living creatures**

Name 3 things you can do at home or school to save energy? **Turn off lights when leave room, don't leave TV on standby, walk or cycle to school / work**

Name 3 ways how you can save water at home?

**Turn off tap when brushing teeth,  
Don't fill kettle all the way up when making cup of tea,**

**Only use washing machine for full loads,  
Fix leaky taps,  
Say no to hose (grass does not need watering, use watering can, wash car with bucket of water),  
Keep a water jug in the fridge instead of running a tap to cool water**

How much water does a running tap waste per minute? 2, 4, **6** or 8 litres (turn off tap)

How much is spent on providing clean safe drinking water for Dublin each year? €2, €11, €65 or **€130 million?**

How many million litres of treated water is produced in Dublin each day? 130, 230, 430, or **530 million litres?** (This is the same as filling 212 Olympic sized swimming pools everyday!)

How many litres of water do we all use each day? 20, 70, 100 or **150 litres** per day?

What % of the world's water is salty or otherwise undrinkable? Is it 2%, 12%, 65% or **97%?**

What % of the world's water is locked in ice caps and glaciers? Is it **2%**, 12%, 65% or 97%?

Including undrinkable (97%) and glaciers and ice caps (2%) what % of useable water is left for people's needs in agricultural, residential, manufacturing, community and personal needs? **1%**

