

Answers
Above All in Science G6

Pg 3 Ex 1.0

1. from oxygen tank
2. from the atmosphere
3. from the atmosphere
4. from the atmosphere
5. from oxygen tank
6. from water
7. from the atmosphere
8. from water

Ex 1.1

1. B 2. C 3. A 4. C

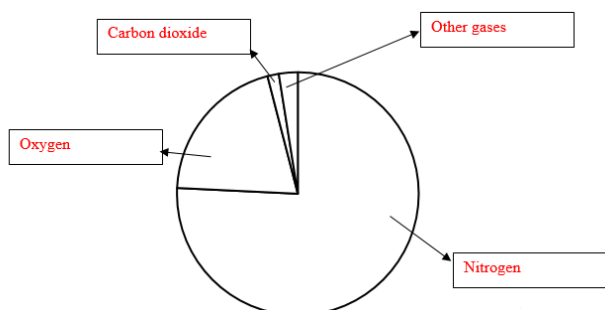
Pg 4 Ex 1.2

1. Nitrogen 2. carbon dioxide 3. Water vapour
4. oxygen 5. animals

Ex 1.3

1. (a) swimmer/ lady/woman (b) fish/corals/sponge
2. It allows the swimmer to breathe in air from the atmosphere through the snorkel mask.

Ex 1.4



Pg 6 Ex 1.5

1. oxygen/food 2. physical 3. plants 4. photosynthesis

Pg 7 Ex 1.6

1. To stay alive. /To help us do our daily activities.
2. To filter the air we breathe.
3. While swimming. /If our nose is blocked during a cold/fever.

Ex 1.7.

1. Pic A – The woman is reading a book. / Pic B – The boys are playing football.
2. Playing football.
3. Because while playing football our heartbeat

increases and therefore we need more oxygen.

Ex 1.8

1. Oxygen
2. It will suffocate and die.
3. Animals need oxygen to survive.
4. As plants take in oxygen day and night, the amount of oxygen in the bedroom will decrease and this will be dangerous to the person.

Pg 9 Ex 1.9

1. Oxygen / Fuel (wax)
2. Carbon dioxide
3. It is getting a continuous supply of oxygen.
4. It has extinguished. / It is not getting a good supply of oxygen.
5. Oxygen is important for burning to take place.

Pg 10 Ex 1.10

1. (a) Cover the pan with a metal lid.
(b) Because the burning oil will float on water and the fire will spread over.
2. Because while using the gas stove carbon dioxide is produced and too much carbon dioxide can cause death.
3. Because the gas water heater produced carbon dioxide and a large amount of carbon dioxide caused death.
4. To be used in case of fire.

Pg 12 Ex 1.11

1. barometer 2. higher 3. low 4. tonnes

Ex 1.12

Inside a suction cup – low air pressure
Inside a balloon – high air pressure
Outside a vacuum cleaner – low air pressure
Formation of anticyclone – high air pressure

Pg 13 Ex 1.13

1. No
2. Because the air pressure outside is exerting a higher pressure on the cardboard.

Pg 13 Ex 1.14

1. To draw medicine into a syringe. / In a vacuum cleaner. / While drinking juice using a straw. / To inflate a tyre or ball.
2. The air pressure outside forces the medicine into the syringe.

3. Because in outer space there is no or less air pressure to force the juice inside the straw.

Pg 14 Ex 1.15

1. Paul
2. The high air pressure outside forces the suction lifter to stick on the windshield.

Pg 14 Ex 1.16

1. Inside the balloon.
2. It will burst.

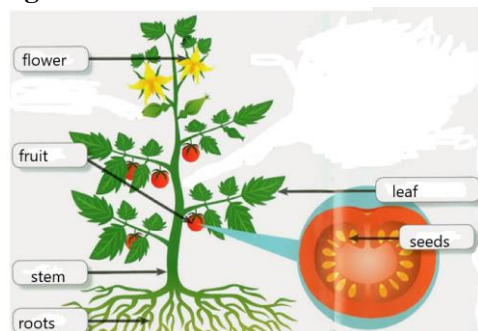
Pg 16 Ex 1.17

1. Eyes / skin / lungs
2. Dust and soot block the pores of plants. /
Dust and soot prevent plants from growing properly.
3. Vehicles must do regular servicing. /
Cover the bin with a lid. /
The chimneys of factories must have air filters.
4. (a) air pollution (b) They suffer from lung/skin diseases. (c) By wearing face masks.
(d) Spray water while crushing rocks/stones.
5. (a) Burning of fossil fuels releases dangerous gases which are bad for health.
(b) Use of natural sources like solar energy and wind energy to produce electricity.
6. More people can travel in metro instead of using their own cars. / The metro is less polluting than vehicles using petrol or diesel.

Pg 19 Ex 1.18

1. In India.
2. Thousands of tonnes of toxic gases from a large pesticide manufacturing plant were released accidentally in the air.
3. Some 3000 people died and thousands of people are still suffering from eye, skin, lung infection and deformation.

Pg 20 Ex. 2.0



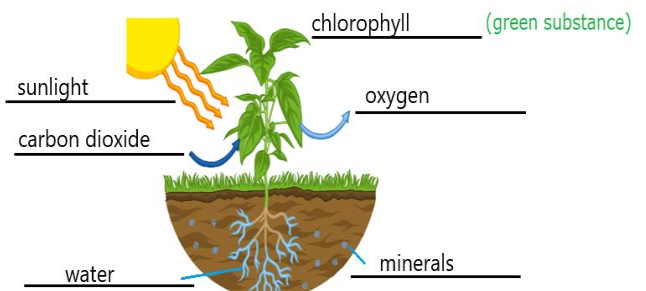
Pg 21 Ex 2.1

- Roots – 1. soil 2. water / minerals 3. soil erosion
4. food
- Stem – 1. leaves 2. sunlight 3. roots
- Leaf – 1. produces /manufactures 2. pores
- Flower – 1. fruits 2. pollination
- Fruit – 1. seeds 2. protects
- Seeds – 1. germinates 2. germination

Pg 23 Ex 2.2

1. leaf 2. chlorophyll 3. pores 4. carbon dioxide
5. roots 6. sun

Pg 24 Ex 2.3



Ex 2.4

water / minerals / carbon dioxide / chlorophyll /
sunlight / food

Ex 2.5

1. Water and minerals / carbon dioxide / sunlight / chlorophyll
2. It absorbs sunlight for the leaves.
3. Oxygen
4. There is no sunlight at night.
5. During photosynthesis, plants take in carbon dioxide and give out oxygen but during respiration, plants take in oxygen and give out carbon dioxide.

Pg 25 Ex 2.6

1. Oxygen
2. The stem.
3. The stem is green in colour.

Pg 28 Ex 2.7

1. Respiration
2. They would not get oxygen to breathe.
3. The amount of carbon dioxide will increase and this will lead to greenhouse effect.
4. Plants will not survive. / Living things will not have oxygen to breathe. / People and animals will not have fruits to eat. / The composition of air will not remain constant.

Ex 2.8

1. B 2. B 3. D 4. C

Pg29 Ex 2.9

1. False – Plants manufacture food only in the presence of sunlight.
2. True – All living things breathe in oxygen to survive.
3. False – Cutting down of trees will cause an increase in carbon dioxide in the atmosphere.

Ex 2.10

1. shelter
2. ayapana
3. shade
4. timber
5. spices

Pg 32 Ex 2.11

1. Soil erosion is the washing away of top fertile soil.
2. Heavy rainfall / Strong winds
3. Deforestation / Forest fires / Overgrazing of animals
4. The land becomes rocky/less fertile and it becomes difficult to grow crops. / Landslides in hilly and sloping lands. / Flash floods since there are no plants/roots to absorb rain water.
5. During heavy rainfall, the washed away soil carried in rivers and sea affects the aquatic animals.
6. Planting trees on sloping lands. / By cutting down terraces on sloping lands. / Growing of vetiver and muguet along sugarcane fields.

Ex 2.12

1. The soil has been washed away.
2. The plants in picture A bind the soil and prevent it from being washed away.
3. Roots of plants help to prevent soil erosion.

Pg 39 Ex 3.0

1. C
2. C
3. B
4. D

Pg 40 Ex 3.1

1. granivorous
2. scales
3. insect
4. platypus
5. fins
6. omnivorous

Ex 3.2

Hairs – deer / hare

Scales – lizard / turtle

Feathers – canary / penguin

Pg 41 Ex 3.3

Walk /run – cat / horse

Swim – shark / goldfish

Fly – housefly / bee

Crawl /creep – snake / crocodile

Ex 3.4

Carnivores – eagle / wolf

Herbivores – giraffe / goat

Omnivores – bear / bat

Pg 42 Ex 3.5

Giving birth – zebra / bats / lion / dolphin

Laying eggs – tortoise / snake / pigeon / cockroach

Ex 3.6

Animal groups	Animals	Characteristics
Mammals	Cow / Horse / Dog Cat / Rabbit / Lion	They reproduce by giving birth. They have hairs on their bodies.
Reptiles	Snake Tortoise / Crocodile / Gecko	They are cold-blooded animals. They reproduce by laying eggs.
Insects	Bee Butterfly	They have six legs and a hard outer shell known as exoskeletons. They reproduce by laying eggs.
Birds	Robin Pigeon / Canary / Kestrel	They have two wings and a beak. They have feathers on their bodies.
Amphibians	Toad / Salamander Frog	They are cold-blooded animals. They reproduce by laying eggs.
Fish	Shark / Goldfish Catfish / Tuna	They have fins and a tail. They breathe through their gills.

Pg 43 Ex 3.7

1. Mammals
2. The squirrel reproduces by giving birth whereas the platypus reproduces by laying eggs.

Ex 3.8

1. (a) Toad (b) Hawk
2. They can both fly.
3. The polar bear is a mammal whereas the penguin is a bird.
4. (a) Dolphin (b) Air from the atmosphere.
5. Whale/ Hawk / Penguin / Toad

Pg 44 Ex 3.9

1. False – The bat is a mammal which reproduces by giving birth.
2. True – They eat only grass or leaves.

Pg 47 Ex 3.10

Food for growth – peanuts / chickpeas / boiled eggs
 Food for energy – butter / oil / bread
 Food for health – cabbage / strawberries / carrot juice

Ex 3.11

1. carbohydrates
2. vegetarians
3. energy
4. diseases
5. weight

Pg 48 Ex 3.12

1. bread, scrambled eggs, lettuce / cereals, milk, banana
2. rice, pulses, carrots
3. rice, fish, cabbage / pasta, chicken, carrots





Ex 3.13

1. (a) food for health (b) food for energy
2. Food for growth
3. Chicken / fish / meat
4. It helps us to grow healthily.
5. We must drink a lot of water. / We must do regular physical exercises. / We must avoid oily or sugary foods and fizzy drinks.

Pg 49 Ex 3.14

1. (a) Yes (b) Both meals contain a food item from each food group.
2. (b) No (b) French fries and the bun (burger) are food for energy.
3. Meal B
4. We will suffer from obesity.
5. (a) Cholesterol/ heart diseases (b) Diabetes

Pg 52 Ex 3.15

	Pre-molar
	Incisor
	Canine
	Molar

Pg 53 Ex 3.16

- red – canines / blue – molars / yellow – premolars / green – incisors
1. (a) To bite, tear and cut food. (b) To tear food. (c) To crush food.

Ex 3.17

1. A – permanent teeth B – milk teeth
2. 20 milk teeth.
3. 32 permanent teeth.
4. No other tooth will grow.
5. Milk teeth are small in size and whiter whereas permanent teeth are bigger in size and are not as white as milk teeth. / The roots of milk teeth are narrow whereas the roots of permanent teeth are wider.
6. To avoid tooth decay.
7. We should eat less sweets and chocolates. / We need to visit the dentist regularly for check-up. / We should replace our toothbrush every three months. / We should use a soft toothbrush to brush our teeth.

Pg 54 Ex 3.18

1. A – zebra B – Bengali tiger
2. The teeth of the zebra are smaller than those of the Bengali tiger. / The Bengali tiger has a larger mouth/jaws to open its mouth to capture its prey whereas the zebra has a smaller mouth/jaws.

Ex 4.0

chair – plastic / gloves – rubber / foil – aluminium / bracelet – gold / vase – glass / jacket – leather

Pg 66 Ex 4.1

1. D 2. C 3. B 4. B

Ex 4.2

Plants – wood / cotton / rubber

Animals – leather / silk

Earth – iron / gold

Pg 67 Ex 4.3

1. Aluminium – It is hard and light. / It does not rust.
2. Wood – It is hard. / It is strong. / It is durable.
3. Wool – It keeps our body warm. / It is soft and durable.
4. Leather – It is strong and durable. / It does not tear easily.
5. Rubber – It is a shock absorbing material. / It is tough and durable.
6. Plastic – It is impermeable. / It is durable.
7. Glass – It is transparent. / It is waterproof.

Ex 4.4

1. rubber
2. Bombyx
3. leather
4. expensive
5. shearing
6. heat
7. iron

Pg 68 Ex 4.5

1. (a) cotton t-shirt (b) woollen sweater / silk shirt
(c) nylon t-shirt
2. (a) mops / handkerchief (b) ropes / fishing line
(c) gloves / scarf (d) tie / dress
3. (a) In winter
(b) It keeps our body warm in winter.
4. Nylon clothes are cheaper than cotton clothes.
5. Cotton clothes absorb sweat better than nylon clothes.
6. Silk clothes are more durable than cotton clothes.

Pg 69 Ex 4.6

1. Aluminium
2. Aluminium is a good conductor of electricity.
3. Rubber / plastic
4. They are non-conductors of electricity. / They are insulators and help to prevent electric shocks.

Pg 70 Ex 4.7

1. (a) It will remain the same.
(b) It will change in colour.
(c) It will remain the same.
2. To prevent air from getting inside the test tube.
3. Iron rusts when exposed to air and water.

Pg 71 Ex 4.8

1. (a) The body of the car. / The vehicle body.
(b) It is hard and light. / It does not rust.
2. (a) Rubber
(b) It is tough and is a shock absorbing material.
3. (a) Glass
(b) It allows light to pass through. / It is transparent.

Pg 72 Ex 4.9

1. It does not rust. / It does not react with air.
2. shiny / expensive / soft / malleable
3. (a) Stainless steel (b) It does not rust.
4. (a) Wood (b) Leather (c) It is impermeable.
(d) It is strong and flexible. /
It is durable and does not tear easily.

Pg 73 Ex 4.10

1. It has been exposed to air and water.
2. Painting/ Greasing / Galvanising.
3. Because steel is stronger than iron.

Ex 4.11

1. They are both impermeable.
2. (a) chairs / table / cups (b) vase / window pane
3. It is fragile.
4. Plastic do not rot and is non-biodegradable.
5. Bio-degradable plastic bags.

Pg 76 Ex 5.0

1. (a) Energy is the ability to do work, to make things move and to cause changes.
(b) From the food they eat.
2. (a) From the sun. (b) To produce their food.
3. From petrol.

Pg 77 Ex 5.1

1. food – movement energy
2. wind – movement energy
3. wood – heat and light energy
4. petrol – movement energy

Pg 78 Ex 5.2

1. chemical energy – light energy
2. electrical energy – light / sound / heat energy
3. electrical energy – heat energy
4. light energy – light energy

Pg 80 Ex 5.3

1. burnt
2. chemical
3. Madagascar
4. Bagasse
5. electric wires

Ex 5.4

1. To roast chicken in an electric oven.
2. To wash clothes in a washing machine.
3. To charge a smartphone.
4. To heat food in a microwave.

Pg 81 Ex 5.5

1. Coal / Bagasse
2. **fuel** – boiling water – **steam** – turbine – **generator** – **electricity**
3. St Louis Thermal Power Station / Fort Victoria Thermal Power Station / Centrale de Nicolay Thermal Power Station / Fort George Thermal Power Station
4. **Chemical energy** – **Movement energy** – Electrical energy – **Heat / Light / Sound**
5. (a) Copper / Aluminium (b) They are good conductors of electricity.
6. Electricity can be produced all year round.
7. It causes air pollution. / It emits carbon dioxide and causes global warming.

Pg 84 Ex 5.6

1. hydro
2. movement
3. dams
4. pipes
5. spins

Ex 5.7

1. Force of falling water – turbine – generator – electricity
2. Magenta / Champagne / La Ferme
3. To get regular supply of water to turn turbines.
4. Movement energy – movement energy – electrical energy – electrical energy
5. It uses water which is a clean source of energy. / It does not produce waste by-product.
6. During periods of drought, electricity will not be produced. / If the dam is damaged, the surrounding region will be destroyed by the force of water.

Pg 85 Ex 5.8

1. sun
2. solar cells
3. light
4. roofs
5. batteries

Pg 86 Ex 5.9

1. light / electrical / chemical / electrical
2. light energy – electrical energy – chemical energy – electrical energy – light energy
3. Solar panels do not cause pollution. / Solar panels require little maintenance and is cost-effective.
4. Electricity is not produced at night. / It costs a lot of money to install solar panels.
5. To save foreign currency. / To reduce pollution.
6. Energy from the sun is free of cost whereas fossil fuels cost a lot of money. / Solar panels do not cause pollution whereas burning of fossil fuels causes air pollution.

Pg 89 Ex 5.10

1. C
2. C
3. A
4. B

Pg 90 Ex 5.11

1. A renewable source of energy can be used over and over again.
2. Solar energy / Wind energy / Hydroelectricity.
3. A non-renewable source of energy cannot be used over and over again.
4. Coal / petrol / natural gas.

Ex 5.12

Causes pollution – coal, bagasse, heavy oil, natural gas

Does not cause pollution – sunlight, wind, hydro

Pg 91 Ex 5.13

1. It is renewable and does not cause pollution.
2. Trees need to be cut down to set up wind farms. / Electricity will not be produced on non-windy days.

Ex 5.14

1. Coal
2. (a) It causes lung and skin diseases. (b) It blocks their pores and prevents them from growing well.
3. (a) It is the gradual increase in the average temperature of the Earth's atmosphere and oceans. (b) Melting of icebergs. / Rise in sea level. / Rise in sea temperature.
4. Setting up of more hydro power stations. / Providing scheme for installing solar panels and solar water heaters.

Pg 92 Ex 5.15

1. False – It causes air pollution when burnt.
2. True – Burning of coal releases harmful gases which are responsible for global warming.
3. True – Fossil fuels cannot be used over and over again.

Pg 94 Ex 6.0

1. C
2. A
3. A
4. D

Pg 95 Ex 6.1

1. A – Sun B – Earth C – Moon
2. The complete rotation of the Earth around the sun causes a year.
3. 365 $\frac{1}{4}$ days.
4. Because every four years the $\frac{1}{4}$ day is added up to make one whole day.
5. Because of the changing positions of the Moon, Earth, and the Sun.

Pg 96 Ex 6.2

1. The Sun.
2. The moon.
3. D
4. Part A will experience daytime.
5. Some countries would not experience daytime or night.

Pg 97 Ex 6.3

1. Water, air and soil are present on planet Earth. / It is neither too hot nor cold on Earth since it is just at the right distance from the sun.
2. To get oxygen. / To get food.

3. (a) They help in dispersal of seeds for new plants to germinate.
- (b) Worms provide nutrients to plants in the soil.
- (c) Bees help in pollination of flowers.
4. Human beings provide carbon dioxide to plants to make photosynthesis.

Ex 6.4

forest – trees / deer
 desert – cactus / scorpion
 lake – water lily / fish
 cave – ferns / bats
 soil – roots of plants / ants
 mountain – shrubs / birds

Pg 100 Ex 6.5

1. Water pollution / Aquatic plants will stop growing well. / Aquatic animals will be affected or die.
2. Air pollution / It blocks the pores of plants and prevents them from growing well. / It can cause lung and skin diseases in animals.
3. Land pollution / Growth of plants are affected when plants absorb contaminated groundwater. / Herbivorous animals may eat the contaminated plants and die.

Pg 101 Ex 6.6

1. (a) Dark smoke coming out of vehicles. / Smoke from factories. / Dust from stone crushers.
- (b) Oil spillage by ships. / Sewage from industries. / Dumping in rivers.
- (c) Dumping on roadside. / Dumping in wastelands.
2. (a) The vehicle engine should be serviced or repaired. / Chimneys of factories must have air filters. / Spray water while crushing rocks.
- (b) Laws should be passed to prevent oil spillage. / Treat sewage before releasing in rivers/sea. / Fines should be imposed for illegal dumping.
- (c) Laws should be passed to prevent illegal dumping. / Use of bins for throwing wastes.
3. Do not throw wastes or dead bodies of animals. / Sensitize the pollution about the importance of preserving our rivers, lakes and seas.

Pg 103 Ex 6.7

1. It is the gradual increase in the average temperature of the Earth's atmosphere and oceans.
2. (a) Burning of fossil fuels / Deforestation
- (b) Flash floods / Droughts (c) Carbon dioxide
3. The rise in sea temperature causes the icebergs to melt.

4. Make compost with leaves rather than burning them. / Drive less and do car-pooling. / Switch off lights when one is not in a room. / Do not waste water.
5. Turn off (using the socket switch) electronic devices when not in use. / Switch off lights when one is not in a room.

Pg 104 Ex 6.8

1. LED bulb.
2. It uses less energy compared to incandescent bulb.

Ex 6.9

1. It is the process of converting wastes into useful objects.
2. It reduces the amount of wastes in the environment.
3. (a) envelopes / notebooks (b) plastic baskets / plastic flowers (c) mirrors / decorative vases (d) artifacts
4. Because they contain poisonous substances.
5. Switch off lights when nobody is in the room. / Collect and use rain water for outdoor cleaning. / Walk short distances rather than using cars.

Pg 106 Ex 6.10

1. Waste from animals is known as manure.
2. Decayed food and garden wastes.
3. They enrich the soil.

Pg 108 Ex 7.0

Living things – frog / tadpoles / flies / water weeds / fish / snail
 Non-living things – soil / water / sun / log

Pg 109 Ex 7.1

1. An ecosystem is an environment where living and non-living things are present.
2. Terrestrial ecosystem – forests / mountains / grasslands / deserts
 Aquatic ecosystem – lagoons / lakes / oceans / rivers / coral reefs

Ex 7.2

2. The cat feeds on the fish. The fish feeds on algae.
3. The zebra feeds on plant. Plant depends on sun and water to produce its food.
4. Human beings depend on vegetables, air and water to survive.

Pg 110 Ex 7.3

1. An aquatic ecosystem.
2. Small fish depend on them for food.

3. Big fish / whale.
4. To provide food to people.
5. Big fish and whales will not have food to eat.

Pg 112 Ex 7.4

1. It is the habitat of thousands of species. / It provides 20 % of the oxygen on planet Earth.
2. It helps to maintain the composition of air constant by absorbing carbon dioxide.
3. Animals and plants lost their habitats. / Animals and plants died.
4. Too much carbon dioxide was released in the atmosphere.

Ex 7.5

Threats - Cutting down of trees for urban development. / Clearing of land for agricultural purposes. / Acid rain due to air pollution caused by harmful gases.

Measures - Proper planning need to be done so as to avoid clearing forests. / High yielding crops must be planted. / Use green sources of energy to produce electricity.

Pg 113 Ex 7.6

1. (a) Sewage from factories. / Polyps will die and coral reefs will stop growing.
- (b) Ash from the burning of sugarcane fields. / People cannot spend their leisure time at the seaside.
- (c) Oil spill by leisure boats. / Aquatic animals and plants will die.

2.

1. More than 1000 tonnes of fuel have leaked out of the ship and into the lagoon.
2. (a) Aquatic animals died.
- (b) Aquatic plants could not grow well or died.
- (c) People could not spend their leisure activities at the seaside.
3. Laws must be reinforced to prevent oil spillage by boats. / Fines should be imposed for oil spillage in lagoons. / Treat sewage before releasing in rivers or sea.

Pg 116 Ex 7.7

1. It is the washing away of sand.
2. Roots of plants are visible. / Bare roots are visible.
3. Strong waves / tsunamis / high tides/ cyclones.
4. Setting up of barriers (rocks). / Trees and grass should be planted on the beach. / Plant mangroves along the coast.

5. Because nautical activities can cause damage to coral reefs.

Ex 7.8

1. It is the washing away of top fertile soil.
2. Heavy rainfall / strong winds / steep slopes.
3. (a) The water is muddy. (b) Aquatic animals may die.
4. Cut down terraces along sloping lands. / Growing of muguet, vetiver, and petit bambou. / Plant trees on sloping lands.
5. Windbreaks reduce the risks of loss of soil by strong winds.

Pg 119 Ex 7.9

1. (a) Mangroves. (b) It protects the beach and the seabed from erosion with their roots. (c) Poudre d'Or / Poste Lafayette
2. Gabion walls helps in decreasing the energy of the waves before they reach the coastline.
3. Cap Malheureux / Poudre d'Or.
4. Rock revetments decrease wind, tidal and wave energy.
5. Poudre d'Or / Bel Ombre.