

Creativity Worksheets

This document comprises of 16 creativity worksheets based on the topics covered by NCERT in grade 6 science textbook. These worksheets are most suitable for students of grade 7 and above. Each worksheet has an open-ended creative task. There is no correct or wrong way to complete a task. We have mentioned a few ideas. We want you to show us some more ideas in writing and/or drawing.

Send us your worksheet responses / photos to [dnte\[at\]hbcse.tifr.res.in](mailto:dnte@hbcse.tifr.res.in) and we will feature your work on our website!

These worksheets were developed as part of Charvi Parikh's Short-term Vistorship Project at the Design and Technology Education Group, Homi Bhabha Centre for Science Education, TIFR, Mumbai.





Creativity Worksheet 1

Connect: Chapter 1 (Food: Where does it come from?), Science Textbook, Class VI, NCERT

Suppose you are visiting your grandmother in a village. Your grandmother loves feeding animals like squirrel, cat and buffalo. Can you design some food dishes for your grandmother to feed the animals?

Hint: What food do animals eat?

Here are some ideas:

1 _____ Walnut pakodas for squirrel _____

2 _____ Grass parathas for buffalo _____

3 _____ Mice daal for cat _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

4 _____

5 _____

6 _____

You may want to draw any of your idea!





Creativity Worksheet 2

Connect: Chapter 2 (Components of Food), Science Textbook, Class VI, NCERT

Suppose you and your mother are invited to take part in a cookery show. You are asked to design a special dish for a specific group of children who have a craving for unhealthy food but need nutritious food due to low eye sight. What food/drink item will you design?

Hint: What do various nutrients do for our body?

Here are some ideas:

- 1 _____ Ice-cream topped with mango pieces _____
- 2 _____ Carrot chips _____
- 3 _____ Cola flavored papaya juice _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 3

Connect: Chapter 3 (Fibre to Fabric), Science Textbook, Class VI, NCERT

Suppose you are a fashion designer. You want your clients to use the same cloth product for more than one purpose. What fashion idea will you design for your clients?

Hint: Which products are made from an un-stitched piece of fabric?

Here are some ideas:

1 _____ Handkerchief as a mask _____

2 _____ Shawl as a belt _____

3 _____ Lady's scarf as a man's turban _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

4 _____

5 _____

6 _____

You may want to draw any of your idea!





Creativity Worksheet 4

Connect: Chapter 4 (*Sorting materials into groups*), Science Textbook, Class VI, NCERT



Suppose you are participating in a toy design contest. You are given a special craft material box. Each box contains earbuds, cotton, paper-clips, pencils, erasers, straws, ribbons and ice-cream sticks. You may use the same item as many times as you want. You may make a toy using only soft material, only hard material or a mix of both soft and hard material. What type of toy will you design and using which material?

Hint: Which products are soft and which are hard?

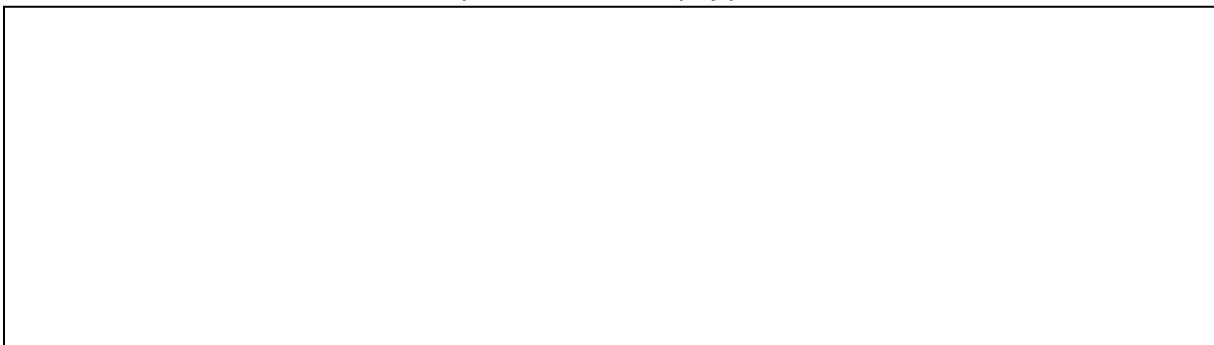
Here are some ideas:

- 1 ___ Doll (soft toy made from cotton bud) _____
- 2 ___ Robot (hard toy made from eraser and pencils) _____
- 3 ___ Elephant (mixed toy made from ribbons, cotton, straws and pencils) _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 5

Connect: Chapter 5 (Separation of substances), Science Textbook, Class VI, NCERT

Suppose you design products for kids. You observe that kids sometimes dislike certain food because of a specific substance mixed in the food. You want to help kids remove the substance they don't like so that they can enjoy the rest of the food item. What will you design to help separate substances from food / drink items?

Hint: Which are the methods of substance separation?

Here are some ideas:

- 1 _____ Strawberries picker for milkshake for kids who love strawberries but hate milk _____
- 2 _____ Lassi filter paper for malai lassi for kids who love love lassi but hate malai _____
- 3 _____ Custard sieve for fruit custard for kids who love custard but hate fruits _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 6

Connect: Chapter 6 (Changes Around Us), Science Textbook, Class VI, NCERT

Suppose you are an architect. You observe that the birds are disappearing from the cities. You believe that this situation is reversible. What will you design to attract birds back to cities?

Hint: Which changes occurring around you are reversible?

Here are some ideas:

1 _____ Vertical gardens on tall buildings _____

2 _____ Bird feeders on lamp post _____

3 _____ Farms on terrace _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

4 _____

5 _____

6 _____

You may want to draw any of your idea!





Creativity Worksheet 7

Connect: Chapter 7 (Getting to Know Plants), Science Textbook, Class VI, NCERT

Suppose you are to design a fantasy land where there is a “forest of sweets”. How would the plants be designed so that every (or some) parts are edible and sweet?

Hint: What are the different parts of a plant?

Here are some ideas:

1 _____ A tree will have chocolate fruits _____

2 _____ A sunflower will have yellow chewing gum petals _____

3 _____ A rose will have gulkand leaves _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

4 _____

5 _____

6 _____

You may want to draw any of your idea!





Creativity Worksheet 8

Connect: Chapter 8 (*Body Movements*), Science Textbook, Class VI, NCERT

Suppose you are on a school trip to Mars scientific lab. The alien scientists are offering to replace one part of your body with an animal's body part. How will you like to redesign your body and for what purpose?

Hint: How do humans and animals move?

Here are some ideas:

- 1_ Replace legs with leopard's legs because I want to be the fastest runner in the class _____
- 2_ Replace body with cobra's body because I want to slither in the class when I am late _____
- 3_ Replace hands with fish's fins because I do not want to learn swimming but want to be able to swim_

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

4 _____

5 _____

6 _____

You may want to draw any of your idea!





Creativity Worksheet 9

Connect: Chapter 9 (The Living Organisms-Characteristics and Habitats), Science Textbook, Class VI, NCERT

Suppose you are to design a theme park where existing animals are modified so that the ones in the terrestrial habitat switch to the aquatic habitat and the ones in the aquatic habitat switch to the terrestrial habitat. How will your newly designed animal look?

Hint: What characteristics do animals in terrestrial and aquatic habitat have?

Here are some ideas:

- 1 ____ An elephant will have blowholes on head instead of a trunk _____
- 2 ____ A dolphin will have light brown colour instead of light blue colour _____
- 3 ____ A snow leopard will have fins instead of fur _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 10

Connect: Chapter 10 (Motion and Measurement of Distances), Science Textbook, Class VI, NCERT

Suppose you design nature inspired products. You are hired by an automobile company to design a car for crowded roads. Which animal will you imitate in your car design and how your design will help in crowded roads?

Hint: Why do the shapes of boats imitate the shapes of animals living in water?

Here are some ideas:

- 1 _____ A giraffe so that the body of the car is at a height and cycles can move beneath it _____
- 2 _____ An elephant so that it can lift the slow cyclist in front and move him to the side of the road _____
- 3 _____ A tortoise so that no one can do rash driving _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 11

Connect: Chapter 11 (Light, Shadows and Reflections), Science Textbook, Class VI, NCERT

Suppose you are a clockmaker hired by a hair dresser. When the hair dresser is cutting hair of her customers, they face a mirror in which they can see the reflection of a clock on the opposite wall. The hair dresser wants her customers to read the time easily. How will you design a “hair salon mirror clock”?

You need to draw the original clock and its mirrored image.

You may add some artwork to make it fancier.

Hint: Mirror images are flipped horizontally. The word “HAIR SALON” will look like **NOJAS RIAH**

(This is how the “Hair salon mirror clock” is designed.)

(This is how the “Hair salon mirror clock” looks to customers when they glance at it in the mirror.)





Creativity Worksheet 12

Connect: Chapter 12 (Electricity and Circuits), Science Textbook, Class VI, NCERT

Suppose you are participating in a game design contest. You need to add an electric circuit to any existing game to make it more fun. Which game's design will you change and what changes will you make?

Hint: Which devices have an electric circuit?

Here are some ideas:

- 1 _____ Cricket game to make bat and ball glow in the dark _____
- 2 _____ Kite for flying it in the night _____
- 3 _____ Carrom game to light up the red coin _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 13

Connect: Chapter 13 (Fun with Magnets), Science Textbook, Class VI, NCERT

Suppose you are a product designer. You observe that some of the products used by kids can be improved using magnets. Which product will you select for magnetizing and how will your design help kids?

Hint: Which are magnetic materials?

Here are some ideas:

- 1 _____ Eraser with magnetic strip to stick on metal cupboard to find it easily _____
- 2 _____ Magnetic clip-on for TV remote to stick on metal bed frame for easy access _____
- 3 _____ Spy-a-pin magnetic stapler to look for fallen stapler pins _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

4 _____

5 _____

6 _____

You may want to draw any of your idea!





Creativity Worksheet 14

Connect: Chapter 14 (Water), Science Textbook, Class VI, NCERT

Suppose you are participating in *Save the Earth* contest. The challenge is to design a new product to help solve water scarcity related problems. What product will you design and how your design will help save the Earth?

Hint: How can we conserve water?

Here are some ideas:

- 1 ___ Smart taps to prevent water leakage _____
- 2 ___ Smart detergent to clean everything without water _____
- 3 ___ Smart app to make rain on demand _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 15

Connect: Chapter 15 (Air Around us), Science Textbook, Class VI, NCERT

Suppose you are a scientist. You want to help humans to settle on Moon. You observe that there is far more dust on Moon than there is on Earth. You want to ensure that Moon dust does not harm humans when they move to Moon. What kind of invention will you design?

Hint: How do dust particles enter our body?

Here are some ideas:

- 1 ____ Build helmets to protect against moon dust _____
- 2 ____ Develop anti-dust vaccine _____
- 3 ____ Develop medicines to grow more fine hair and mucus inside nose _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

- 4 _____
- 5 _____
- 6 _____

You may want to draw any of your idea!





Creativity Worksheet 16

Connect: Chapter 16 (*Garbage In, Garbage Out*), Science Textbook, Class VI, NCERT

Suppose you are participating in a hi-tech design contest. You need to design a dustbin that will help reduce waste at landfill. What feature will you design in your automated smart dustbin?

Hint: Why do ragpickers sort the garbage?

Here are some ideas:

1 ___ It will auto segregate discarded waste into different compartments _____

2 ___ It will auto collect discarded waste from the floor and segregates into different compartments ___

3 ___ It will auto recover reusable waste and return to the owner _____

Now write your own ideas. Give a variety of ideas. Crazy ideas also welcome!

4 _____

5 _____

6 _____

You may want to draw any of your idea!

