

Nothing tends so much to the advancement of knowledge as the application of a new instrument. The native intellectual powers of men in different times are not so much the causes of the different success of their labours, as the peculiar nature of the means and artificial resources in their possession.

..... Sir Humphrey Davy,

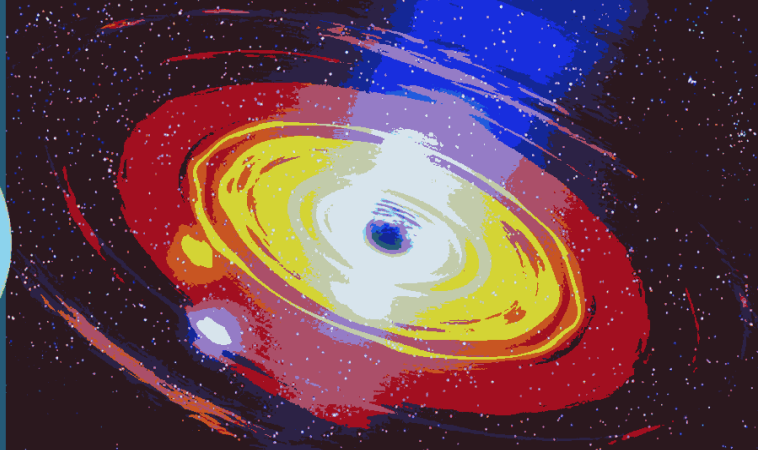
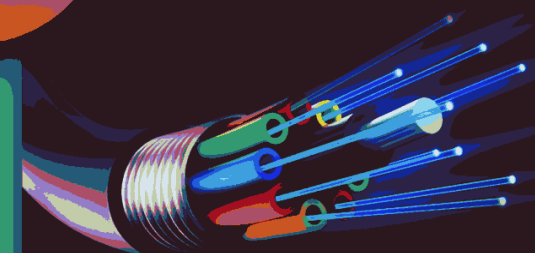
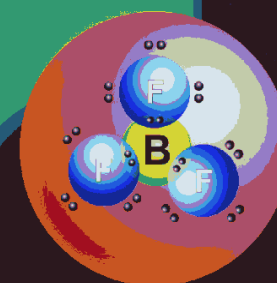
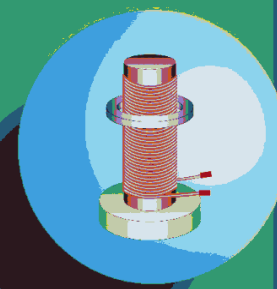
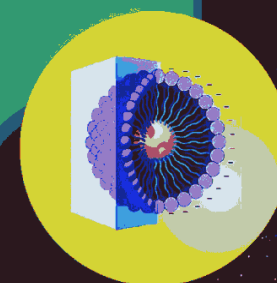
PHYSICAL SCIENCE

CLASS 10

# PHYSICAL SCIENCE

CLASS 10

F



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# The Modern Periodic Table of the Elements

The Modern Periodic Table of the Elements

1

IA

H

1

Hydrogen

2

IIA

Be

4

Beryllium

3

IIIB

Li

3

Lithium

4

IVB

Sc

21

Scandium

5

VB

Na

11

Sodium

6

VIB

Mg

12

Magnesium

7

VIB

K

19

Potassium

8

VIB

Rb

37

Rubidium

9

VIB

Cs

55

Cesium

10

VIB

Fr

87

Francium

11

VIIB

Ca

20

Calcium

12

VIIB

Sr

38

Strontium

13

VIIB

Ba

56

Barium

14

VIIB

Ra

88

Radium

15

VIII

Sc

21

Scandium

16

VIII

Y

39

Yttrium

17

VIII

La

57

Lanthanum

18

VIII

Ac

89

Actinium

19

VIII

Ti

22

Titanium

20

VIII

Zr

40

Zirconium

21

VIII

Hf

72

Hafnium

22

VIII

Rf

104

Rutherfordium

23

VIII

V

23

Vanadium

24

VIII

Nb

41

Niobium

25

VIII

Ta

73

Tantalum

26

VIII

Db

105

Dubnium

27

VIII

Cr

24

Chromium

28

VIII

Mo

42

Molybdenum

29

VIII

W

74

Tungsten

30

VIII

Sg

106

Seaborgium

31

VIII

Mn

25

Manganese

32

VIII

Tc

43

Technetium

33

VIII

Ru

44

Ruthenium

34

VIII

Rh

45

Rhodium

35

VIII

Pd

46

Palladium

36

VIII

Fe

26

Iron

37

VIII

Ru

44

Ruthenium

38

VIII

Rh

45

Rhodium

39

VIII

Pd

46

Palladium

40

VIII

Co

27

Cobalt

41

VIII

Ni

28

Nickel

42

VIII

Cu

29

Copper

43

VIII

Zn

30

Zinc

44

VIII

Fe

26

Iron

45

VIII

Ru

44

Ruthenium

46

VIII

Rh

45

Rhodium

47

VIII

Pd

46

Palladium

48

VIII

Co

27

Cobalt

49

VIII

Ni

28

Nickel

50

VIII

Cu

29

Copper

51

VIII

Zn

30

Zinc

52

VIII

Fe

26

Iron

53

VIII

Ru

44

Ruthenium

54

VIII

Rh

45

Rhodium

55

VIII

Pd

46

Palladium

56

VIII

Fe

26

Iron

57

VIII

Ru

44

Ruthenium

58

VIII

Rh

45

Rhodium

59

VIII

Pd

46

Palladium

60

VIII

Co

27

Cobalt

61

VIII

Ni

28

Nickel

62

VIII

Cu

29

Copper

63

VIII

Zn

30

Zinc

64

VIII

Fe

26

Iron

65

VIII

Ru

44

Ruthenium

66

VIII

Rh

45

Rhodium

67

VIII

Pd

46

Palladium

68

VIII

Fe

26

Iron

69

VIII

Ru

44

Ruthenium

70

VIII

Rh

45

Rhodium

71

VIII

Pd

46

Palladium

72

VIII

Co

27

Cobalt

73

VIII

Ni

28

Nickel

74

VIII

Cu

29

Copper

75

VIII

Zn

30

Zinc

76

VIII

Fe

26

Iron

77

VIII

Ru

44

Ruthenium

78

VIII

Rh

45

Rhodium

79

VIII

Pd

46

Palladium

80

VIII

Fe

26

Iron

81

VIII

Ru

44

Ruthenium

82

VIII

Rh

45

Rhodium

83

VIII

Pd

46

Palladium

84

VIII

Co

27

Cobalt

85

VIII

Ni

28

Nickel

86

VIII

Cu

29

Copper

87

VIII

Zn

30

Zinc

88

VIII

Fe

26

Iron

89

VIII

Ru

44

Ruthenium

90

VIII

Rh

45

Rhodium

91

VIII

Pd

46

Palladium

92

VIII

Fe

26

Iron

93

VIII

Ru

44

Ruthenium

94

VIII

Rh

45

Rhodium

95

VIII

Pd

46

Palladium

96

VIII

Co

27

Cobalt

97

VIII

Ni

28

Nickel

98

VIII

Cu

29

Copper

99

VIII

Zn

30

Zinc

100

VIII

Fe

26

Iron

101

VIII

Ru

44

Ruthenium

102

VIII

Rh

45

Rhodium

103

VIII

Pd

46

Palladium

104

VIII

Fe

26

Iron

105

VIII

Ru

44

Ruthenium

106

VIII

Rh

45

Rhodium

107

VIII

Pd

46

Palladium

108

VIII

Co

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Cobalt

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VIII

Ni

28

Nickel

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VIII

Cu

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Copper

111

VIII

Zn

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Zinc

112

VIII

Fe

26

Iron

113

VIII

Ru

44

Ruthenium

114

VIII

Rh

45

Rhodium

115

VIII

Pd

46

Palladium

116

VIII

Fe

26

Iron

117

VIII

Ru

44

Ruthenium

118

VIII

Rh

45

Rhodium

119

VIII

Pd

46

Palladium

120

VIII

Co

27

Cobalt

121

VIII

Ni

28

Nickel

122

VIII

Cu

29

Copper

123

VIII

Zn

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Zinc

124

VIII

Fe

26

Iron

125

VIII

Ru

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Ruthenium

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VIII

Rh

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Rhodium

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VIII

Pd

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Palladium

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VIII

Fe

26

Iron

129

VIII

Ru

44

Ruthenium

130

VIII

Rh

45

Rhodium

131

VIII

Pd

46

Palladium

132

VIII

Co

27

Cobalt

133

VIII

Ni

28

Nickel

134

VIII

Cu

29

Copper

135

VIII

Zn

30

Zinc

136

VIII

Fe

26

Iron

137

VIII

Ru

44

Ruthenium

138

VIII

Rh

45

Rhodium

139

VIII

Pd

46

Palladium

140

VIII

Fe

26

Iron

141

VIII

Ru

44

Ruthenium

142

VIII

Rh

45

Rhodium

143

VIII

Pd

46

Palladium

144

VIII

Co

27

Cobalt

145

VIII

Ni

28

Nickel

146

VIII

Cu

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Copper

147

VIII

Zn

30

Zinc

148

VIII

Fe

26

Iron

149

VIII

Ru

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Ruthenium

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VIII

Rh

45

Rhodium

151

VIII

Pd

46

Palladium

152

VIII

Fe

26

Iron

153

VIII

Ru

44

Ruthenium

154

VIII

Rh

45

Rhodium

155

VIII

Pd

46

Palladium

156

VIII

Co

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Cobalt

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VIII

Ni

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Nickel

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VIII

Cu

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Copper

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VIII

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Zinc

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VIII

Fe

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Iron

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VIII

Ru

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Ruthenium

162

VIII

Rh

45

Rhodium

163

VIII

Pd

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Palladium

164

VIII

Fe

26

Iron

165

VIII

Ru

44

Ruthenium

166

VIII

Rh

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Rhodium

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VIII

Pd

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Palladium

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VIII

Co

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Cobalt

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VIII

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Nickel

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Copper

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VIII

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Zinc

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Fe

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Iron

173

VIII

Ru

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Ruthenium

174

VIII

Rh

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Rhodium

175

VIII

Pd

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Palladium

176

VIII

Fe

26

Iron

177

VIII

Ru

44

Ruthenium

178

VIII

Rh

45

Rhodium

179

VIII

Pd

46

Palladium

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VIII

Co

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Cobalt

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VIII

Ni

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Nickel

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VIII

Cu

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Copper

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VIII

Zn

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Zinc

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VIII

Fe

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Iron

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VIII

Ru

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Ruthenium

186

VIII

Rh

45

Rhodium

187

VIII

Pd

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Palladium

188

VIII

Fe

26

Iron

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VIII

Ru

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Ruthenium

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VIII

Rh

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Rhodium

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VIII

Pd

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Cobalt

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VIII

Ni

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Nickel

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VIII

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Copper

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VIII

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Zinc

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Ru

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Ruthenium

198

VIII

Rh

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Rhodium

199

VIII

Pd

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Palladium

200

VIII

Fe

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Iron

201

VIII

Ru

44

Ruthenium

202

VIII

Rh

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Rhodium

203

VIII

Pd

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Palladium

204

VIII

Co

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Cobalt

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VIII

Pd

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VIII

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Ru

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Ruthenium

222

VIII

Rh

45

Rhodium

223

VIII

Pd

46

Palladium

224

VIII

Fe

26

Iron

225

VIII

Ru

44

Ruthenium

226

VIII

Rh

45

Rhodium

227

VIII

Pd

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Palladium

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VIII

Co

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Cobalt

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Copper

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VIII

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Zinc

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Iron

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VIII

Ru

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Ruthenium

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VIII

Rh

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Rhodium

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VIII

Pd

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Palladium

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VIII

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Iron

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VIII

Ru

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Ruthenium

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Rh

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Rhodium

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VIII

Pd

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Palladium

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Ruthenium

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Rh

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Rhodium

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VIII

Pd

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Palladium

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VIII

Fe

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Iron

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VIII

Ru

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Ruthenium

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VIII

Rh

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Rhodium

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VIII

Pd

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Palladium

252

VIII

Co

27

Cobalt

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VIII

Ni

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Nickel

254

VIII

Cu

29

Copper

255

VIII

Zn

30

Zinc

256

VIII

Fe

26

Iron

257

VIII

Ru

44

Ruthenium

258

VIII

Rh

4

## INSPIRE AWARDS

Inspire is a National level programme to strengthen the roots of our traditional and technological development.

The major aims of Innovations in Science Pursuit for Inspired Research (INSPIRE) programme are...

- Attract intelligent students towards sciences
- Identifying intelligent students and encourage them to study science from early age
- Develop complex human resources to promote scientific, technological development and research

Inspire is a competitive examination. It is an innovative programme to make younger generation learn science interestingly. In 11<sup>th</sup> five year plan nearly Ten Lakhs of students were selected during 12<sup>th</sup> five year plan (2012-17) Twenty Lakhs of students will be selected under this programme.

Two students from each high school (One student from 6 - 8 classes and one from 9 - 10 classes) and one student from each upper primary school are selected for this award.

Each selected student is awarded with Rs. 5000/-. One should utilize 50% of amount for making project or model remaining for display at district level Inspire programme. Selected students will be sent to State level as well as National level.

Participate in Inspire programme - Develop our country.

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